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ABSTRACT

This volume describes 24 publicly available multiple-perspective management-assessment instruments that relate self-view to the views of others on multiple management and leadership domains. Each instrument also includes an assessment-for-development focus that scales managers along a continuum of psychometric properties, and "best practices" for management development. The instruments reviewed are: (1) "Benchmarks"; (2) "Campbell Leadership Index" (CLI); (3) "COMPASS: The Managerial Practices Survey"; (4) "Executive Success Profile" (ESP); (5) "Survey of Executive Leadership" (EXEC); (6) "Leader Behavior Analysis II" (LBAII); (7) "The Visionary Leader: Leader Behavior Questionnaire" (LBQ); (8) "Leadership Effectiveness Analysis" (LEA); (9) "Acumen Leadership Skills" LEADERSHIP SKILLS; (10) "Leadership/Impact" (L/I); (11) "Leadership Practices Inventory" (LPI); (12) "Life Styles Inventory" (LSI); (13) "MANAGER VIEW/360"; (14) "Matrix: The Influence Behavior Questionnaire" (MATRIX); (15) "Management Effectiveness Profile System" (MEPS); (16) "Multifactor Leadership Questionnaire" (MLQ); (17) "The PROFILER"; (18) "PROSPECTOR"; (19) "Survey of Leadership Practices" (SLP); (20) "The Survey of Management Practices" (SMP); (21) "System for the Multiple Level Observation of Groups" (SYMLOG); (22) "Types of Work Index" (TWI); (23) "VOICES"; and (24) "Acumen Leadership Work Styles" (WORKSTYLES). Three aspects are described for each instrument: (1) descriptive: author; vendor, copyright date, purpose, target audience, cost, scoring and certification procedures, duration, format, and raters; (2) research: origins, scales, scale definitions, samples, cautionary statement, and instrument reports; and (3) training: sample instrument, sample feedback report, and training materials. (RIB)

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A Review and Comparison of Multi-Rater Instruments for Management Development

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Feedback to Managers

A REVIEW AND COMPARISON OF MULTI-RATER INSTRUMENTS FOR MANAGEMENT DEVELOPMENT

THIRD EDITION

Feedback to Managers

A REVIEW AND COMPARISON OF MULTI-RATER INSTRUMENTS FOR MANAGEMENT DEVELOPMENT

THIRD EDITION

JEAN BRITTAIN LESLIE
JOHN W. FLEENOR

Center for Creative Leadership
Greensboro, North Carolina

The Center for Creative Leadership is an international, nonprofit educational institution founded in 1970 to advance the understanding, practice, and development of leadership for the benefit of society worldwide. As a part of this mission, it publishes books and reports that aim to contribute to a general process of inquiry and understanding in which ideas related to leadership are raised, exchanged, and evaluated. The ideas presented in its publications are those of the author or authors.

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Preface

Feedback is a rare commodity in day-to-day organizational life, but it is a key to managerial effectiveness. One increasingly popular vehicle for getting feedback from one's boss, peers, subordinates, and customers is the multiple-perspective, or "360-degree," feedback instrument. Taken as part of a management-development course or used as a stand-alone device, this kind of tool can enhance self-awareness by highlighting individual strengths and can facilitate greater growth by pointing out areas in need of further development.

Twenty years ago, the Center for Creative Leadership published *Feedback to Managers: A Comprehensive Review of Twenty-four Instruments*. A popular publication among a long line of Center technical reports, it covered virtually all multiple-perspective instruments available at the time.

In 1991, a revision of *Feedback to Managers* was published as a two-volume report. Volume I presented a simple but comprehensive process for evaluating instruments designed to compare self-view to the views of others on multiple domains of managerial behavior. Volume II contained a comparison of sixteen of the better feedback instruments. In 1997, Volume I was updated and re-titled *Choosing 360: A Guide to Evaluating Multi-rater Feedback Instruments for Management Development*, and the present report is essentially the revision of Volume II.

The field of management assessment instruments continues to grow and expand, giving potential users of these products more choices than ever before. The reality today is that any one catalog of feedback instruments will be quickly obsolete. More than ever before, human resource professionals need to have the ability to conduct thorough instrument evaluations if they are to keep up with the latest products available and choose the one that best suits their needs.

This edition of *Feedback to Managers* is designed to assist you in that task. It presents a comparison of the better feedback instruments that we were able to obtain. The reader can use this report to gain an appreciation of what some of the most experienced instrument developers have been able to achieve in terms of reliability and validity, and in terms of constructing high-impact feedback displays. Complete information on these instruments is presented in the "Summaries" section at the end of this report.

It is our hope that this approach will be of enduring benefit, in that managers will be able to use these guides to get an overview of the field today and to learn a process by which to evaluate any feedback instrument that comes across their desks today or in the foreseeable future.

Acknowledgments

We would like to express our appreciation to the reviewers whose comments, ideas, and criticisms have improved this edition of *Feedback to Managers*. These reviewers include Lillas Brown, Manny London, Gail Robinson, and Walter Tornow. We are also indebted to Edna Parrott and the instrument vendors for their help, patience, and support throughout this project.

We would like to express special appreciation to Ellen Van Velsor for her contribution to this effort. Her work on the previous edition of this report remains the foundation on which this edition is based. Without Ellen's extensive contributions, this report would not have been possible.

Introduction

This report compares some of the most frequently used multiple-perspective management-assessment instruments. Our review focuses on a subset of all publicly available instruments that relate self-view to the views of others on multiple management or leadership domains. In addition to being publicly available, these instruments have in common an assessment-for-development focus, a scaling method that permits assessment of a manager along a continuum, sound psychometric properties, and some of the "best practices" for management development. Our purpose in comparing these instruments is to describe the current state of the art to clarify what one can expect in terms of quality and to highlight ideas for future research and development in this field.

Although we initially intended to compare all multi-rater instruments, we soon realized that the field had grown to such proportions that some potentially good ones would remain undiscovered by even our most comprehensive search. These include instruments used in organizations but not available externally, promising instruments in early developmental stages (and, therefore, not quite ready to market), instruments about which we were unable to obtain sufficient information, instruments authored by individuals who declined to have their work considered, and instruments that our search, for other reasons, failed to reveal.

Initially, we collected data on forty-five instruments. We began our search by contacting the author(s) or publishers of the twenty-four reviewed in the original *Feedback to Managers* report (Morrison, McCall, & DeVries, 1978), and the sixteen instruments reviewed in the revised *Feedback to Managers* report (Van Velsor & Leslie, 1991a, 1991b).

To identify instruments published since 1991, we conducted an on-line computer literature search of social/behavioral science and business indexes (using key words such as *management, leadership, feedback, survey, questionnaire, instrument,* and *evaluation*). We also examined reference books, such as *The Mental Measurements Yearbook* (Conoley & Impara, 1995); *Tests: A Comprehensive Reference for Assessment in Psychology, Education and Business* (Sweetland & Keyser, 1986, 1990); and *Psychware Sourcebook* (King, 1988). We asked trainers at the Center for Creative Leadership to recommend instruments, and we collected and examined catalogs from major publishers of feedback instruments. Additionally, authors and vendors we had identified were contacted concerning their knowledge of instruments other than their own. Finally, several authors and vendors who heard about our study "through the grapevine" graciously sent us unsolicited copies of their work.

For each instrument, we asked for three kinds of information:

Descriptive: author(s), vendor, copyright date(s), statement of purpose, target audience, cost, scoring process, certification process, instrument length, item-response format, and type(s) of raters.

Research: item origins, feedback scales, scale definitions and sample items, a cautionary statement about misinterpretations, and written reports or papers from studies of the instrument's reliability and validity.

Training: sample copy of the instrument, a sample feedback report, and any support materials (instructional or developmental) provided for trainers or participants.

If essential information was not received, the author was contacted at least once more, by mail or by phone. If information was subsequently not forthcoming, the instrument was removed from our list for review. Forty-five instruments had sufficient data to evaluate.

After reviewing the data, we decided to limit our comparison to the instruments that, in our judgment, reflected both accepted standards of instrument development (that is, standards set by the American Educational Research Association, the American Psychological Association, and the National Council of Measurement on Education as reflected in *Standards for Educational and Psychological Testing* [APA, 1985]) and reasoned principles and techniques for enhancing performance development as a result of feedback. A total of twenty-four instruments met these criteria, fifteen of which were reviewed in the 1991 publication. It is important to note that test development and revision is a continuing process that extends beyond the initial development of items, scales, scores, normative data, and interpretation. Almost all of the instruments reviewed in 1991 have undergone further development and refinement.

Summaries of these instruments appear at the end of this report. If we have summarized an instrument that you are interested in evaluating, you can rely on our description for much of the information that is needed to evaluate it. If the instrument or instruments you are concerned with are not included here, you can use these descriptions as examples of the nature and depth of information you should be seeking and as comparison points in your own review.

Although the inclusion or discussion of a particular instrument in this report signifies that it met relatively high standards for development, it does not mean that it is one of the best for your use or that there are not other instruments that meet these same high standards. We have reviewed only a portion of all available instruments, and our reviews do not incorporate a critical part of the equation: your specific needs and situation.

The instruments we compare are listed in Table 1, with acronyms in boldface type. Whenever feasible, acronyms will be used in lieu of full instrument titles.

These instruments are just a sample of all those available today. Of the forty-five instruments for which we initially obtained information, these strike the best balance between sound psychometric properties and the realities of management-development practice. We believe that our sample is a good one, in that it represents a significant portion of the better instruments in use today.

In the sections that follow, we compare this sample on dimensions critical to instrument evaluation (see Van Velsor, Leslie, & Fleenor, 1997), and we draw conclusions about trends over time in the development and use of managerial feedback instruments, the state of the art today, and directions for future research and development.

Table 1
Instruments Reviewed

Instrument	*Author(s)*	*Vendor*
BENCHMARKS®	Michael M. Lombardo, Ed.D. Cynthia D. McCauley, Ph.D.	Center for Creative Leadership (336) 545-2810
CLI (Campbell Leadership Index®)	David Campbell, Ph.D.	NCS Assessments (800) 627-7271
COMPASS (COMPASS: The Managerial Practices Survey)	Gary Yukl, Ph.D.	Manus (800) 455-0942
ESP (Executive Success Profile)	Personnel Decisions International	Personnel Decisions International (800) 633-4410
EXEC (Survey of Executive Leadership)	Clark Wilson, Ph.D. Paul M. Connolly, Ph.D.	The Clark Wilson Group, Inc. (800) 537-7249 Human Synergistics/Center for Applied Research, Inc. (847) 590-0995
LBAII (Leader Behavior Analysis II®)	Kenneth H. Blanchard Ronald K. Hambleton Drea Zigarmi Douglas Forsyth	Blanchard Training and Development (800) 728-6000
LBQ (The Visionary Leader: Leader Behavior Questionnaire)	Marshall Sashkin, Ph.D.	Human Resource Development Press (800) 822-2801
LEA (Leadership Effectiveness Analysis)	Management Research Group	Management Research Group® (207) 775-2173
LEADERSHIP SKILLS (Acumen® Leadership Skills)	Christopher W. Guest, Ph.D.	Acumen International (415) 492-9190
L/I (Leadership/Impact®)	Robert A. Cooke, Ph.D.	Human Synergistics/Center for Applied Research, Inc. (847) 590-0995
LPI (Leadership Practices Inventory)	James M. Kouzes Barry Z. Posner, Ph.D.	Jossey-Bass/Pfeiffer (415) 433-1740
LSI (Life Styles Inventory®)	J. Clayton Lafferty, Ph.D.	Human Synergistics International (800) 622-7584

Table 1 (continued)

Instruments Reviewed

Instrument	*Author(s)*	*Vendor*
MANAGER VIEW/360™	Kenneth M. Nowack, Ph.D.	Organizational Performance Dimensions (800) 538-7628
MATRIX (MATRIX: The Influence Behavior Questionnaire	Gary Yukl, Ph.D. Rick Lepsinger Tony Lucia	Manus (800) 445-0942
MEPS (Management Effectiveness Profile System)	J. Clayton Lafferty, Ph.D.	Human Synergistics International (800) 622-7584
MLQ (Multifactor Leadership Questionnaire)	Bernard M. Bass, Ph.D. Bruce J. Avolio, Ph.D.	Mind Garden (650) 424-8493
PROFILOR (The PROFILOR®)	Personnel Decisions International	Personnel Decisions International (800) 633-4410
PROSPECTOR™	Morgan W. McCall, Ph.D. Gretchen M. Spreitzer Joan Mahoney University of Southern California	Center for Creative Leadership (336) 545-2810
SLP (Survey of Leadership Practices)	Clark L. Wilson, Ph.D. Paul M. Connolly, Ph.D.	The Clark Wilson Group, Inc. (800) 537-7249
SMP (The Survey of Management Practices)	Clark L. Wilson, Ph.D.	The Clark Wilson Group, Inc. (800) 537-7249
SYMLOG® (System for the Multiple Level Observation of Groups)	Robert F. Bales, Ph.D.	SYMLOG Consulting Group (619) 673-2098
TWI (Types of Work Index)	Charles Margerison, Ph.D.	Team Management System (703) 318-7206
VOICES®	Michael M. Lombardo, Ed.D. Robert W. Eichinger, Ph.D.	Lominger Limited, Inc. (612) 542-1466
WORK*STYLES* (Acumen® Leadership Work*Styles*™)	Ronald A. Warren, Ph.D. Peter D. Gratzinger, Ph.D.	Acumen International (415) 492-9190

Note: BENCHMARKS, CLI, LEADERSHIP SKILLS, LSI, PROFILOR, SYMLOG, VOICES, and WORK*STYLES* are registered trademarks. For reasons of space and simplicity, we have indicated this only at key points in the text.

WHO AND WHAT IS ASSESSED: TARGET AUDIENCE AND INSTRUMENT DOMAINS

Although most people would agree that the nature of the management job changes and intensifies at higher organizational levels, the instruments reviewed here are not very specific in the audiences they target. In addition, instruments that are directed to different levels do not differ significantly in the domains they assess (for example, the scales on which feedback is received).

Most of the instruments state that they can be used by managers at all organizational levels (CLI, COMPASS, LEA, LEADERSHIP SKILLS, L/I, LPI, LSI, MANAGER VIEW/360, MATRIX, MLQ, PROSPECTOR, SLP, SMP, SYMLOG, TWI, and WORK*STYLES*). In practice, however, some of these same instruments are often used by a narrower audience. BENCHMARKS, LBAII, LBQ, MEPS, and VOICES are directed to middle to senior managers. Only three are more specific in defining their target audience: PROFILOR is advertised primarily for use by middle managers, whereas ESP and EXEC are meant for executives (general managers and above).

Thus, most instruments (67%) are targeted toward a broad or multiple-level audience. Yet those intended for a more focused group differ little in the behaviors they assess from those claiming a broader audience. Two instruments assessing basic management skills and behaviors (COMPASS and LEADERSHIP SKILLS) are very similar in terms of domains covered (for example, planning, delegating, monitoring, informing, team building) but differ in terms of their target audience. WORK*STYLES* was developed from the LSI yet has a narrower target audience, even though both measure attitudes and thinking styles with scales such as "Approval," "Conventional," "Power," and "Achievement."

It may be that the choice of target audience is sometimes more of a marketing decision than a decision made based on research or development criteria. Or a final target audience may evolve during the process of instrument development and validation. For example, the MLQ, which was developed from a theoretical model of transformational and transactional leadership, and which initially was thought to be applicable only to senior levels, was found to apply equally well at lower levels of management.

The lack of a clear relationship between the target audience and the domains assessed also may result from a difference in philosophy behind the different instruments. Some leadership instruments tend to treat leadership more as a demand of upper-level jobs (for example, LBQ), whereas others treat it as an activity or characteristic that can occur at any level. The latter type target a broader group, encompassing all managerial levels (MLQ and LPI) or even adults in any occupation (CLI and SYMLOG).

Finally, some instruments directed at all or multiple levels are focused on skills and behaviors needed in day-to-day operations, whereas others focus on skills needed to create or weather change in the organization. Two of Wilson's instruments (SLP and SMP) exemplify this distinction. Although both are targeted toward multiple levels, the SLP focuses more on leadership through change, whereas the SMP (like COMPASS and LEADERSHIP SKILLS) assesses dimensions of behavior relevant to effective management of day-to-day operations. The Multifactor Leadership Questionnaire (MLQ) incorporates elements of both the day-to-day and change skills, calling both "Leadership"—one "Transformational" and one "Transactional."

Table 2

Target Audience

Instrument	*All Levels*	*Mid-Levels*	*Upper Levels*
BENCHMARKS		X	X
CLI	X		
COMPASS	X		
ESP			X
EXEC			X
LBAII		X	X
LBQ		X	X
LEA	X		
LEADERSHIP SKILLS	X		
L/I	X		
LPI	X		
LSI	X		
MANAGER VIEW/360	X		
MATRIX	X		
MEPS		X	X
MLQ	X		
PROFILOR		X	
PROSPECTOR	X		
SLP	X		
SMP	X		
SYMLOG	X		
TWI	X		
VOICES		X	X
WORK*STYLES*	X		

A key to choosing among instruments is to match the instrument's domains with the audience with whom the instrument is intended to be used. As we have pointed out, there seems to be little relationship between management level and the domains of activity or behavior assessed. More important than considering the target audience is matching the norm group, if any, to which managers will be compared. If, for example, the norm group is comprised of senior-level managers, whose skills are likely to be more highly developed, the scores of middle managers will probably appear worse than they would if they were compared to managers similar to themselves.

DEVELOPMENT OF ITEMS, RESPONSE SCALES, AND FEEDBACK SCALES

Origin of Items

Morrison et al. (1978) found that most of the instruments they reviewed lacked a solid grounding in either theory or research. Over the past twenty years, however, more research has been done on the nature of managerial work and leadership effectiveness, and many instruments reflect this growing body of knowledge. Today more than ever, instruments seem to be gaining ground in terms of an empirical or theoretical base, and research continues to be the basis of their ongoing development and refinement.

When an instrument is theory-based, critical domains of behavior are identified from theory and operationalized as feedback scales, with items then written to capture different aspects of the domains (or scales). When an instrument is empirically based, items may be written first, based on knowledge gained through research (for example, on what managers actually do), with substantive scale development following later through factor-analytic and other psychometric methods. Very often, this research leads to new theories or better theories. The experience-based approach may proceed either "up" from items to scales or "down" from scales to items, but it is guided by the developer's experience rather than by accepted theory or research data.

Although no single approach to item development is necessarily better than others, a theoretically grounded instrument is preferable if one desires to assess qualities described in a particular model of leadership or management. And a theoretically grounded instrument can lend itself to a richer, hypothesis-testing approach to validation research.

Most of the instruments reviewed here tend to draw on several theories or to combine more than one approach. In general, it is better to use instruments on which the most research has been done, and we found that those that used the theoretical or empirical approaches tend to be backed up by more research.

Most instruments in our sample are at least somewhat grounded in theory (CLI, COMPASS, ESP, EXEC, LBAII, LBQ, LEA, LEADERSHIP SKILLS, L/I, LPI, LSI, MATRIX, MLQ, PROFILOR, PROSPECTOR, SLP, SMP, SYMLOG, TWI, VOICES, and WORK*STYLES*), and many have been based on the results of research (BENCHMARKS, COMPASS, ESP, LEA, L/I, LPI, MANAGER VIEW/360, MATRIX, MEPS, MLQ, PROSPECTOR, SYMLOG, VOICES, and WORK*STYLES*).

Table 3

Origin of Items

Instrument	*Theory*	*Research*	*Developer's Experience*
BENCHMARKS		X	
CLI	X		X
COMPASS	X	X	
ESP	X	X	X
EXEC	X		X
LBAII	X		X
LBQ	X		X
LEA	X	X	
LEADERSHIP SKILLS	X		X
L/I	X	X	
LPI	X	X	
LSI	X		
MANAGER VIEW/360		X	
MATRIX	X	X	
MEPS		X	
MLQ	X	X	
PROFILOR	X		X
PROSPECTOR	X	X	
SLP	X		X
SMP	X		X
SYMLOG	X	X	X
TWI	X		X
VOICES	X	X	
WORK*STYLES*	X	X	

Response Scales

Types of Response Scales

Response scales are the choices raters are given for responding to each item. For example, an item such as "Clearly communicates a positive outlook for the future" could have response choices such as "To a great extent/To some extent/To a little extent."

Most scales are continuous in nature, meaning that responses are assigned numbers (for example, 5 = Always, 3 = Sometimes, 1 = Never), and scores are computed by adding or averaging across items in a scale. Less often, scales are categorical (each point on the response scale signifies a qualitatively different outcome). For example, the LBAII gives raters a situation and asks them to choose, from four possibilities, the one that best fits the way they believe the manager would act. These choices are not actually points on a single rating scale but are four distinct actions a manager could take in response to a situation or problem. Each possible choice represents a manifestation of one of four leadership styles.

There are two main types of continuous response scales used across managerial feedback instruments—frequency or magnitude scales and comparative performance ratings. Frequency or magnitude scales ask raters to rate how often a manager engages in a behavior; how often a statement is true of the manager; or how much or to what extent a statement is true, characteristic, or descriptive of the manager's behavior. Comparative performance scales, on the other hand, ask raters to judge how well a manager performs each task or behavior compared to other managers (for example, "Among the best/About average/Among the worst").

By far, the frequency or magnitude scales are the most often used. Instruments having this type scale include **BENCHMARKS**, **CLI**, **COMPASS**, **ESP**, **EXEC**, **LBQ**, **LEADERSHIP SKILLS**, **L/I**, **LPI**, **LSI**, **MANAGER VIEW/360**, **MATRIX**, **MEPS**, **MLQ**, **PROFILOR**, **PROSPECTOR**, **SLP**, **SMP**, **SYMLOG**, **TWI**, **VOICES**, and **WORK***STYLES*. The only two instruments reviewed here that use a comparative performance scale are **BENCHMARKS** and **ESP** (in addition to the frequency or magnitude scales).

The use of a frequency scale seems to imply that engaging in a practice or behavior more often signifies greater mastery. But Shipper (1991) found that an increase in the frequency of behaviors can be independent of mastery and that increased frequency alone has little or no positive impact on employee performance or morale. His research suggests that instruments with response scales directly assessing mastery may provide the most useful and valid feedback and that frequency-based scales may be a poor second choice.

The measurement of mastery, however, is subtle and complex because it is a function of both the response scale and item content. Frequency or magnitude scales can, in fact, measure mastery.

Although the frequency of a behavioral item such as "Walks around to see how our work is going" surely does not imply mastery of anything, a frequency or magnitude scale can assess mastery if the items are phrased as desired skills. In other words, if a manager displays a desired skill, such as "Is good at motivating others to work hard" with a response scale "To a great extent/To some extent/Not at all," then we can infer mastery of the skill or competence. But if the same response scale is used to assess items phrased as traits or characteristics, then mastery is not implied. For example, if a rater chooses "To a great extent" in response to the item "Overly dependent on others," the result suggests the manager has a certain quantity of the characteristic "dependence," but mastery of skill is not implied.

The nature of the item/response scale combination presented on an instrument is important when item-level feedback is presented to managers. Frequency-type feedback on behavioral items may be the easiest for managers to use because they are the most concrete, and small changes will tend to be visible and thus reinforceable by others. But if the behaviors are not phrased as competencies, the changes made may be simple behavioral changes, without significant personal development. On the other hand, feedback on traits or characteristics may be more difficult to use because "how to change" may be less clear and changes made may be the hardest to observe. But change on this type item can be very significant developmentally for the individual if sufficient guidance is provided in understanding the feedback. Feedback on desired skills probably falls somewhere in between these two extremes and may best facilitate meaningful change. This type feedback tends to be moderately easy to use, while the changes are often observable and tend to involve real skill development.

For example, if a manager receives a low score on an item such as "Walks around to see how our work is going," change will be relatively easy (that is, the manager can walk around more). But this change will probably lead to little in the way of real development for that manager. If one receives a low score on a skill-based item such as "Is good at influencing people," it will be harder to change, since the manager will have to find out how to become better and will then need to improve. But if change is successful, the result will be important skill development. Finally, receiving a low score on an item such as "Highly motivated" can be the hardest of all to change, because change will require that the manager reflect and discover why motivation is low, decide how to correct that, and then make whatever personal or life changes are required to feel more motivated. Yet this type of change, if successful, can be the most developmental.

The LEA uses a modified ipsative response scale, which is an uncommon approach to response scaling for multi-rater feedback instruments. Ipsative scales are commonly known as forced-choice scales. With the modified version of this scaling method, each item consists of a stem and three possible alternatives. The respondent chooses the alternative that best describes him or her and rates it "5" or "4." The respondent then chooses the remaining alternative that next best describes him or her and rates it "3" or "2." The third alternative is left blank and scored as describing respondent the least. This rating format indicates the rank order of the respondent's preferences for the three alternatives, as well as the strength of preference for each alternative. Over the course of the questionnaire, each item is compared to all of the other items on the instrument. Although Mahoney and Mahoney (1996) argue that modified ipsative scaling reduces the intercorrelations among scales, there is some controversy over their use among measurement experts. The primary argument against ipsative scales is that they are not appropriate for comparing the scores of respondents who have completed the instrument.

Length of Response Scales

The length of response scales ranges from 3 points (LSI and SYMLOG) to 10 points (LPI). Likert's (1932) work introduced many people to the 5-point scale, which remains the most frequently used scale length (BENCHMARKS, ESP, LBQ, LEADERSHIP SKILLS, MATRIX, PROFILOR, VOICES, and WORK*STYLES*).

Table 4
Response Scales

Instrument	*# Points on Scale*	*"Non-observed" Choice (NA or DK)*	*Frequency/ Magnitude*	*Comparative Performance*	*Other*
BENCHMARKS	5		X	X	X
CLI	6		X		
COMPASS	4	NA, DK	X		X
ESP	5	NA	X		X
EXEC	7		X		
LBAII	4				X
LBQ	5		X		
LEA	6				X
LEADERSHIP SKILLS	5	UTR	X		
L/I	7 & 5		X		X
LPI	10		X		
LSI	3		X		
MANAGER VIEW/360	7	NA	X		
MATRIX	5		X		
MEPS	7		X		X
MLQ	4		X		
PROFILOR	5	NA	X		X
PROSPECTOR	7		X		
SLP	7		X		
SMP	7		X		
SYMLOG	3		X		
TWI	4		X		
VOICES	5	NA, DK	X		X
WORK*STYLES*	5		X		

NA = Not applicable. DK = Don't know. UTR = Unable-to-Rate.

The optimal number of response choices depends on how many distinctions a person can make in rating behaviors or skills. If people can distinguish between seven levels of skill, then a response scale with three choices would provide measurement that is unnecessarily imprecise. But if people can distinguish only three levels, a greater number of choices may be too ambiguous. In this situation, how much the person being rated is liked by the rater may be the factor that causes the rater to choose one rating over the other.

How many distinctions one can make depends both on how well the rater knows the target manager and the phenomenon being measured. In general, the better the target manager is known by the rater, the greater the number of distinctions that can be made. For example, a teacher may be able to make relatively fine distinctions in rating the academic aptitude of his or her students, but if asked to assess the physical health of several relative strangers, could probably sort them into only two or three categories—say "Excellent," "Fair," and "Poor."

Response scale studies have been done on only a few of these instruments. Research on the MLQ has shown that "Once in a while" means, to the average rater, about half as frequently as "Sometimes" (Bass, Cascio, & O'Connor, 1974). In research leading to the development of COMPASS, Yukl, Wall, and Lepsinger (1990) found that discrimination was poor for response formats with three or fewer choices but that feedback tended to be confusing for formats with many choices. On the other hand, Davidson (1989), researching SYMLOG's 3-interval response scale, found that three response levels produced results "more nearly interval" than a 5-point scale.

Nonresponse

Most instruments assume that raters can evaluate all behaviors being assessed. Only a few (COMPASS, ESP, MANAGER VIEW/360, PROFILOR, VOICES, and WORK*STYLES*) contain a "Don't know" (DK) or "Not applicable" (NA) alternative in their response scales. Without this option, raters who truly do not know how to rate someone or who are rating someone to whom a behavior does not apply have two choices: to rate the manager anyway or to leave the item blank.

In the absence of such response choices, it becomes difficult to interpret a nonresponse. Nonresponse could mean the rater did not know how to evaluate an item or it could mean the item was not applicable to the target manager's job. If the rater decides to choose a response when he or she really does not know anything about the manager's performance in that area, that manager is going to be provided with data that are probably not accurate.

Not providing the opportunity for raters to register "Not applicable" responses also can cause valuable research data to be lost. A significant number of "NA" responses to one or more items is a valuable piece of validity data, in early stages of instrument-development research and over time. It may be that as social and business conditions change, specific items change in relevance. Collecting this kind of data allows authors or vendors to remain in touch with item viability.

Development of Feedback Scales

Most instruments reviewed in this report have used multiple methods in developing their feedback scales. Statistical methods used include factor analysis, cluster analysis, and item-scale correlations, all of which serve to group items into scales based on the degree of similarity in the response patterns of raters (that is, people rated high on one item also rated high on other items). In addition, many instrument developers refine statistically derived factors, using personal judgments based on theory, conceptual models, or experience.

Factor analysis, in conjunction with an examination of item-scale correlations, was used in the development of **BENCHMARKS**, **CLI**, **COMPASS**, **ESP**, **EXEC**, **LBQ**, **LEADERSHIP SKILLS**, **L/I**, **MANAGER VIEW/360**, **MEPS**, **MLQ**, **PROSPECTOR**, **SLP**, **SMP**, **SYMLOG**, and **WORK*STYLES***. The **LEA** and **PROFILOR** used factor-analytic methods not to develop scales but rather to examine the fit of a model already in use and to make refinements. The **LPI**, **LSI**, **MATRIX**, and **VOICES** used factor analysis alone or in combination with methods other than item-scale correlations, whereas the **LBAII** and **TWI** relied primarily on item-scale correlations.

Of the instruments in our sample that have been developed using factor-analytic methods, virtually all have taken an exploratory approach. Basically, exploratory factor analysis groups a larger number of items into smaller numbers of general factors, without incorporating assumptions about how items should or will be grouped together. The factor structure produced is the "best" description of the particular data on which the analysis was run.

When exploratory factor analysis has been the primary tool in scale construction, it is important to establish that the factor structure produced will hold up over time and with other populations or samples (that is, that the factor structure is able to be generalized from the original sample). Fifteen of these instruments (**CLI**, **COMPASS**, **ESP**, **EXEC**, **LBQ**, **LEADERSHIP SKILLS**, **LPI**, **LSI**, **MANAGER VIEW/360**, **MLQ**, **SLP**, **SMP**, **SYMLOG**, **VOICES**, and **WORK*STYLES***) appear to have done such testing. Nine of these (**CLI**, **COMPASS**, **ESP**, **LPI**, **MLQ**, **SLP**, **SMP**, **SYMLOG**, and **WORK*STYLES***) compared the factor structure across different samples, whereas eight (**COMPASS**, **LBQ**, **LEADERSHIP SKILLS**, **LPI**, **LSI**, **SMP**, **SYMLOG**, and **WORK*STYLES***) compared the structure across rater groups (for example, peers and subordinates).

Confirmatory factor analysis is a newer and increasingly popular tool in instrument development. Its strength and promise lie in its ability to test theoretically derived models using relatively small samples or to check the original factor structure (derived through other statistical methods) in follow-up studies with different samples.

To our knowledge, only one instrument (**SYMLOG**) has used confirmatory factor-analytic studies. The analysis known as *partial least squares*, a less restrictive confirmatory approach, has been used to analyze the factor structure of the **MLQ**. Because the basic purpose (and strength) of these methods is to test a model rather than build one, they can have great utility in the refinement and further testing of leadership theory and instrumentation.

Table 5

Development of Feedback Scales

Instrument	*Factor/Cluster Analysis*	*Item-scale Correlations*	*Reexamination of Scale Structure*
BENCHMARKS	X	X	
CLI	X	X	X
COMPASS	X	X	X
ESP	X	X	X
EXEC	X	X	X
LBAII		X	
LBQ	X	X	X
LEA		X	X
LEADERSHIP SKILLS	X	X	X
L/I	X		
LPI	X		X
LSI	X		X
MANAGER VIEW/360	X	X	X
MATRIX	X		
MEPS	X	X	
MLQ	X	X	X
PROFILOR			X
PROSPECTOR	X	X	
SLP	X	X	X
SMP	X	X	X
SYMLOG	X	X	X
TWI		X	
VOICES	X		X
WORK*STYLES*	X	X	X

PSYCHOMETRIC PROPERTIES

Overall, psychometric quality appears to be steadily improving. In 1978, Morrison et al. reported that, of the instruments they reviewed, psychometric studies had been completed on only 24%. In 1991, 40% (16 of 40) of the instruments examined by Van Velsor and Leslie had sufficient data pertaining to their reliability and validity. In this report, we found that 53% (24 of 45) met minimal test development standards.[†]

Reliability

Internal Consistency

Homogeneity within scales is called *internal consistency*. This type of reliability applies to scales rather than to the individual items.

Internal consistency measures are based on the average correlation among items and the number of items in a scale. It asks, in other words, whether all the items that make up a single scale are, in fact, measuring the same thing (as inclusion in a single scale would suggest). If they are, then managers who exhibit one of the behaviors that define the scale should also tend to exhibit the remaining behaviors described by items on that scale. If this coefficient is low, either the scale contains too few items or the items have little in common. If the coefficient is very high, the scale may have more items than necessary. An alpha of .7 is generally considered acceptably high.

Internal consistency has been studied for each of these twenty-four instruments, most often using Cronbach's alpha coefficient. Studies of these instruments resulted in alphas ranging from a low of .45 to a high of .97 for self-reported scales (which generally tend to be lower than alphas derived from rater data), and in alphas ranging from a low of .62 to a high of .98 for rater-reports (see the "Summaries" section for results on specific instruments). Overall, internal consistency coefficients tend to be higher than either interrater agreement or test-retest results, for reasons discussed in the next two sections.

Interrater Reliability

Agreement within rater groups is commonly called *interrater reliability*. This concept assumes that two or more subordinates, peers, or supervisors, having had an adequate opportunity to observe a manager's behavior, should not have greatly discrepant perceptions of performance on behaviors indicated by clearly stated and otherwise reliable items or scales.

Interrater reliability is usually studied using intraclass correlations or eta-squared coefficients. Several of the instruments we reviewed (LBAII, LBQ, EXEC, LPI, MANAGER VIEW/

[†] The *Standards for Educational and Psychological Testing* (APA, 1985) are being revised. The Center for Creative Leadership has been playing a liaison role by providing feedback to the Joint Committee (American Educational Research Association, American Psychological Association, National Council on Measurement in Education) whose task it is to revise them. It is our belief that the information provided here reflects current standards and is in keeping with the upcoming revision of the *Standards*.

360, MATRIX, PROSPECTOR, TWI, and VOICES) have not had interrater reliability studies done. Of those that have studied interrater agreement, median reliabilities within rater groups of .41 to .51 were most common. The range across the instruments was as low as .24 to as high as .96 (see the "Summaries" section for results on specific instruments).

There are several reasons why interrater reliability tends not to be very high for multi-rater feedback instruments. One reason is that raters are typically untrained. Although trained raters may produce higher agreement by using a common evaluative framework, the people who complete these instruments rely on nothing more than their own perceptions, and these tend to vary. Another reason is that individuals may be managed differently by the same manager. Their within-group reliability (especially on behavioral items or scales) may be relatively low because the target manager actually interacts differently with each of them. And, similarly, interrater reliability among peers may be lowered to the extent that managers interface differently with peers in different areas of the organization.

On the other hand, one needs to be wary of very high correlations because they may be an indication of a halo effect or raters' overall bias toward the individual. Therefore, within-group reliability should not be lower than .4 or much higher than .7.

Test-retest Reliability

Stability over short periods of time is called *test-retest reliability*. It is studied in relation to both items and scales. An item should be stable enough to produce a similar response this week and next week, given that no significant event, such as training, has intervened. If the meaning of an item is unclear or debatable, it may produce varying responses because of this ambiguity, rather than because any real change in behavior or skill level has taken place. Low test-retest results on an item suggest that the item should be revised and retested or dropped from a scale.

A little over half of the instruments we reviewed had examined test-retest reliability. Although some instruments have used test-retest studies done at the item level to select items for inclusion into scales (that is, correlations between test and retest scores have been computed for each item separately), most instruments that report test-retest coefficients do this for each scale on which feedback is given. It is important to keep this distinction in mind when comparing instrument results, because test-retest coefficients on scales tend to be higher than correlations computed for items. Reliability automatically increases as a function of adding items, as long as those items are positively correlated with others in the scale.

Instruments on which test-retest reliability studies have been completed include BENCHMARKS, CLI, COMPASS, LBAII, LEA, LEADERSHIP SKILLS, LPI, MANAGER VIEW/360, MATRIX, MLQ, SYMLOG, and WORK*STYLES*. No data are currently available on ESP, EXEC, LBQ, L/I, LSI, MEPS, PROFILOR, PROSPECTOR, SLP, SMP, TWI, and VOICES.

Reliabilities can range in theory from 0 to 1.0. Many psychometricians (for example, Nunnally, 1978) consider a reliability of .7, over short time intervals, to be adequate. Most of these feedback tools, on many of their scales, have not been able to demonstrate test-retest reliabilities quite that high, for many of the same reasons discussed above in the section on interrater reliability. Results obtained range from as low as .29 to as high as .96 for self-report test-retest and from as low as .48 to as high as .95 for rater test-retest (see the "Summaries" section for results on specific instruments).

In addition to rating basic performance or behavior, many of these instruments ask raters to evaluate the importance of each item or scale to success, either in the manager's current job or in the target organization (BENCHMARKS, COMPASS, ESP, EXEC, LEA, LEADERSHIP SKILLS, PROFILOR, SYMLOG, TWI, VOICES, and WORK*STYLES*). To our knowledge, however, the test-retest reliability of these "importance" ratings has not been investigated for any of the instruments reviewed here. What is perceived as important, especially to long-term success in an organization, may be very much affected by raters' own satisfaction with their organization or by changes going on across the organization. Data of this type may be very unstable over relatively short periods of time, but so far we know very little about the psychometric properties of importance ratings.

One occasionally hears an instrument author or vendor argue that test-retest reliability is inappropriate for their instrument because it is designed to create change in those to whom it is administered. This stance is based on a misunderstanding of the purpose and method of conducting reliability studies. Test-retest studies are usually done over short time periods (four to six weeks) and should always be done without giving feedback to those managers who are being rated, at least prior to the retest.

Although responding to a set of items may influence a manager to focus on previously neglected dimensions of managerial practice and thus may change self-ratings in these areas, the actual behavior of managers is unlikely to be influenced so quickly, therefore it is unlikely that rater data will be affected. As has been documented in research over the years (Hellervik, Hazucha, & Schneider, 1992), real behavioral change is quite difficult to achieve, usually requiring both powerful feedback and intense follow-up.

Some people argue that it is too difficult to get adequate samples of managers and raters from large business organizations to take the time required to complete an instrument twice for a test-retest study. Many instrument developers, however, have made creative use of student leader groups, MBA program participants, professional organizations, small-business managers, and others who may benefit from feedback at a substantially reduced cost in return for participation in the research effort.

Validity

Rather than examining the several, often overlapping "types" of validity (for example, criterion-related, concurrent, and predictive), one should focus on the main inferences that underlie the use of an instrument. By *use* we mean both the use for which it was intended and the use you plan to make of it. But be forewarned: The feedback instruments reviewed here have been developed for use in management-development efforts, either in the classroom or in individual feedback settings. These are instruments that have not been developed or tested for other purposes, such as making selection or promotion decisions.

More than ever before, the responsibility for appropriately using the instrument falls on the instrument user. Because the potential user shoulders the responsibility of using the instrument appropriately, interpreting the feedback, and becoming knowledgeable about the instrument, we have added a cautionary statement to the individual instrument reviews. Provided by the instrument developer, these statements include precautions against possible misuses, misinterpretations, and adverse, unintended consequences of misusing the instrument.

The modern view of validity is that the different types of validity are actually aspects of a single concept, construct validity. Construct validity indicates what meaning can be attached to the scores from an instrument. Validity testing can be seen as a layered process of testing the various inferences that underlie the use of an instrument. With feedback instruments used for leadership or management development, there are three basic inferences to be tested: (1) that the instrument measures what it intends to measure, (2) that scores on the instrument are related to effective performance, and (3) that the competencies or behaviors measured are amenable to change.

The first underlying assumption is that the instrument actually measures what it claims to be measuring. Favorable results from this type of test provide, for example, evidence that the instrument is related to scores on comparable instruments whose psychometric properties are known. Other tests of this assumption include determining if certain scales on the instrument are correlated with related personality characteristics and not correlated with unrelated characteristics.

The next underlying assumption is that scores on the instrument are related to important aspects of managerial effectiveness on the job. The typical way to test this hypothesis is to compare scores on the instrument to some other data relating to effectiveness or competence. These data, if collected at the same time as the ratings on the instrument, reflect current effectiveness. Raters may be asked to rate the target manager on a different effectiveness measure; current performance appraisal data may be collected; or data may be obtained that relate to current employee or work-group productivity. In addition, effectiveness data or data on promotions may be collected after some time has elapsed, so that we can investigate whether performance can be predicted by scores on the instrument from an earlier time.

The third type of study to look for is one which shows that the concepts measured are amenable to change as a result of training, feedback, or other developmental experiences. This is the most difficult study to find, because very few instrument developers have done this research. Studies of change resulting from feedback are very scarce.

One additional issue in examining validity is the samples used in the studies. How well do the characteristics of the sample reflect those of your target population? If the sample was primarily white male and your target audience will be more diverse, check to see whether gender or ethnic differences were found in the research on the instrument in question.

Keep in mind, however, that no instrument is ever proven valid once and for all. Validity is an ongoing process that involves collecting evidence over time in varying situations for different populations. In fact, any time the intended use of an instrument departs significantly from the assumptions underlying validity research to date, more research needs to be done.

It is useful to think of validity as a continuum ranging from no evidence that the inferences underlying the instrument are valid, to some evidence, to a good deal of evidence among varying groups and in different contexts. In general, the number of validity studies done should correspond roughly to how long the instrument has been around. Newer instruments will have fewer studies reported, but all instruments that offer feedback from co-workers should have at least one study completed that indicates the instrument is measuring what it claims to measure, and one that shows that its scores are related to effectiveness.

Psychometricians typically discuss several aspects of validity, such as construct, concurrent, and predictive validity.

Construct Validity

Studies of construct validity typically test the first assumption—that is, that the instrument measures what it intended to measure. The construct validity of the instruments reviewed here has been studied using one or more of the following methods: item-scale correlations, hypothesis testing, multimethod approaches, or comparisons to other instruments. Given the number of well-researched managerial feedback instruments that are on the market today, however, it is surprising how few of the developers have chosen to look at construct validity by comparing scores on several instruments. Although it is difficult to get a single group of managers to complete several of these instruments at about the same time, it would be interesting to know the extent to which these instruments measure the same constructs and to know the real uniqueness (if any) of each.

Concurrent Validity

The second assumption—that scores on the instrument are related to effective performance—is studied in research on concurrent or predictive validity (criterion-related studies). All of the instruments reviewed here have been examined by at least one study of concurrent validity, indicating that scores on the instrument are related to current performance. Most have gone beyond a single study to do additional studies of concurrent or construct validity. The "Summaries" section of this report describes current or important validity studies for each of the instruments.

Predictive Validity

Instruments' predictive validity, which indicates that scores on an instrument are related to future performance, has been examined in: BENCHMARKS, CLI, COMPASS, ESP, LBAII, LBQ, LEADERSHIP SKILLS, LPI, LSI, MANAGER VIEW/360, MEPS, MLQ, PROFILOR, PROSPECTOR, SLP, SYMLOG, VOICES, and WORK*STYLES*.

Although some call any study "predictive" that relates scores to performance, it is predictive validity defined more narrowly (that is, scores related to future performance) that is of interest in choosing an instrument for selection or promotion purposes. No instrument in our sample, however, has been developed for this use, and despite some initial efforts, none has been sufficiently tested in this arena.

Managerial feedback instruments that compare self-perceptions to the views of others are basically dealing with perceptions of behavior or competence rather than with competence measured in an absolutely verifiable sense. *An individual or organization planning to use an instrument of this sort for selection or promotion purposes is in difficult territory and will need to become aware of professional standards and government guidelines not covered in this report.* For an in-depth discussion on using 360-degree feedback for other than purely developmental purposes, see Bracken, Dalton, Jako, McCauley, & Pollman (1997).

Table 6

Reliability and Validity

	RELIABILITY			**VALIDITY**		
Instrument	*Test-retest*	*Internal Consistency*	*Interrater*	*Construct*	*Concurrent/ Predictive*	*Impact Study*
BENCHMARKS	X	X	X	X	X/X	
CLI	X	X	X	X	X	
COMPASS	X	X	X	X	X	
ESP		X		X	X	
EXEC		X		X		
LBAII	X	X		X	X/X	
LBQ		X		X	X	
LEA	X		X	X		
LEADERSHIP SKILLS	X	X	X	X	X	
L/I		X	X	X		
LPI	X	X		X	X	
LSI		X	X	X	X	
MANAGER VIEW/360	X	X		X	X	
MATRIX	X	X		X		
MEPS		X	X	X	X	
MLQ	X	X	X	X	X/X	
PROFILOR		X	X		X	
PROSPECTOR		X			X	
SLP		X	X	X	X	
SMP		X	X	X		
SYMLOG	X	X	X	X	X/X	
TWI		X		X		
VOICES		X		X	X	
WORK*STYLES*	X	X	X	X	X	

Impact Studies

The third assumption—that the competencies or behaviors measured are amenable to change—is typically studied in research on the impact of feedback, not in research specifically concerned with validity. Yet, because this assumption must underlie any instrument intended for management development, data on the ability of managers to enhance the areas measured by an instrument (or to enhance awareness about these areas) is a key piece of the total validity picture.

Unfortunately, this is a piece that is very difficult to get a fix on, for several reasons. Access to post-training data is often hard to obtain, requiring that the researcher have a long-term relationship with a client to gather data three, six, or twelve months after feedback is received. A sound research design for a study of change would also require data from a control group, whose members had been evaluated but had received no feedback—another type of data that isn't easy to obtain.

Even given the opportunity to conduct such research, one is faced with the challenging question of how to measure change. Measuring change is a very thorny issue statistically and conceptually, with the "right" method still subject to dispute (Cronbach & Furby, 1970; Golembiewski, 1989). Without a control group for comparison purposes, any change detected after the feedback cannot definitely be attributed to the feedback or training itself. If no "impact" is found, we cannot be sure that no change has occurred, nor can we be sure that the instrument is at fault, because the managers may not have been trying to change. Another problem is that co-workers sometimes react negatively to any change in a manager's behavior, and raters may report no change or negative change in a post-assessment when the manager actually has been working hard to respond to the feedback received. And, as mentioned above, significant individual change usually requires feedback, training, support, and concentrated effort on the part of the manager. In addition, evidence of change resulting from feedback is often an issue leadership researchers are not primarily interested in addressing. Most authors of these instruments are mainly concerned with understanding leadership *per se* rather than any resulting development (Clark & Clark, 1990). As such, they are more concerned with construct or criterion questions (that is, Are these competencies measuring leadership and are they related to effectiveness?) rather than with the question of whether the scales represent developable skills.

Very few of the instruments reviewed here have been studied in terms of the impact of the feedback. Wilson has done several studies on the SMP. Although these studies show promising results (that is, he found significant change occurring as a result of both feedback alone and feedback in combination with training), much work remains to be done.

Gender and Ethnic Differences

Gender-difference studies have been completed on several of the instruments (BENCHMARKS, CLI, ESP, LEA, LPI, MLQ, PROFILOR, PROSPECTOR, SMP, and SYMLOG). Many of these studies tell us whether men are rated differently than women by their bosses, peers, and subordinates. Current studies of BENCHMARKS, CLI, ESP, PROSPECTOR, PROFILOR, and SYMLOG have found no differences on some scales, women rated higher on several scales, and men rated higher on still others. Others have compared self-report data of men to women (LEA) and have found little (LPI) to no differences (SMP).

Although there has been a great deal of interest in gender differences, as well as in gender bias on the part of raters, the area of ethnic differences is much more sparsely researched. Little is known about whether ethnic groups are rated differently on leadership instruments and to what extent rater bias plagues these ratings. Beyond that, we know very little about how well scores on these instruments relate to effectiveness for either women or ethnic groups. Only two instruments, BENCHMARKS and PROFILOR, have been examined for racial or ethnic differences.

Knowing that women (or ethnic groups) are rated differently than white males is not the same as knowing whether an instrument's scales bear the same relationship to effectiveness for different groups. The latter is determined by a study of comparative validity—that is, a study of how the scales are related to effectiveness for groups other than white males. Only two of these instruments (BENCHMARKS and SYMLOG) have been studied for comparative validity with respect to males and females. None have been looked at for comparative validity across ethnic groups.

Comparative validity is a critical area, especially when an instrument, derived from research on a white male sample, has had reliability and validity studies conducted using a similar sample. Given what we have learned in recent years about the experience of women and minorities in management (for example, Morrison, White, & Van Velsor, 1987; Ohlott, Ruderman, & McCauley, 1990; Powell, 1988; Thomas, 1990), this aspect of validity should not be overlooked.

International Use

If you plan to use an instrument internationally, issues to be concerned with include the quality of translation, the availability of international norms, and evidence of validity for international samples.

Translating an instrument should be a carefully executed, multistage process, including both translation from English to the other language as well as independent translation from the other language back into English. The use of back-translation ensures that meaning has not been changed in the process. Careful attention should be paid to idioms during this process. For example, "putting out fires" is common jargon among U.S. managers but has a different, more literal interpretation in both the nonmanagement arena and in areas outside the United States.

It is not always the case that an instrument translated for international use includes translated feedback and development materials. Many instrument vendors have translated only the instrument itself but not the feedback report or development guide. Products such as this can be used for English-speaking managers whose raters are not fluent in English. They cannot, however, be used for managers who themselves are not fluent in English because they will be unable to read their feedback report. Thus, if your target managers do not speak English, check thoroughly the completeness of translation for all materials related to the instrument.

Finally, instruments developed from research, theory, or experience with U.S. managers must undergo further testing with the population for whom the instrument will be used. Norms should also be collected so that cross-cultural comparisons can be made. If managers in the international group score differently than U.S. managers, international norms should be made available for use in other cultures. Also, cross-cultural validity studies need to be undertaken to verify that scores on the instrument are related to effectiveness in the other cultures.

Table 7

International Use

Instrument	*Questionnaire Translations*	*Feedback Translations*	*International Norms Available*	*Internationally Tested for Validity/Reliability*
BENCHMARKS	AN, CH, DU, FC, FR, GR, IT, JP, NW, SP	AN, DU, FC, FR, GR, NW	X	X
COMPASS	FR, GR, IT, KR, SP'	(NCA)	X	
EXEC	CH, FR, GR, IT, JP, KR, PG, SP	(NCA)		
LBAII	FR, GR, SP	FR, GR, SP	X	X
LBQ	SW	SW		
LEA	AN, DN, DU, FR, GR, IT, NW, SP, SW	AN, DN, DU, FR, GR, IT, NW, SP, SW	X	
LEADERSHIP SKILLS	SP	(NCA)	X	
L/I	RN	RN		
LPI	FR, SP	FR, SP	X	X
LSI	DU, FC, FN, GR, SP	DU, FC	X	

Key:

AN Anglicized English
AU Australian
BA Bahasa Indonesian
CH Chinese
CN Canadian
DN Danish
DU Dutch
FA Farsi
FC French Canadian
FN Finnish
FR French
GR German
HB Hebrew
IN Indian
IT Italian
JP Japanese
KR Korean
NW Norwegian
NZ New Zealand
PG Portuguese
RN Russian
SG Singaporean
SP Spanish
SW Swedish
TH Thai
UD Urdu
VM Vietnamese

(NCA) = Not currently available.

CLI, ESP, MATRIX, PROSPECTOR, and TWI are not included in this table because no materials have been translated.

Table 7 (continued)

International Use

Instrument	*Questionnaire Translations*	*Feedback Translations*	*International Norms Available*	*Internationally Tested for Validity/Reliability*
MANAGER VIEW/360	SP	SP	X	X
MEPS	FR	FR		
MLQ	DU, FR, CH, GR, HB, IT, JP, SP, UD	IT, SP	X	X
PROFILOR	AN, BA, CH, DN, DU, FR, GR, IT, JP, KR, NW, PG, SP, SW	AN, DN, DU, FR, GR, IT, JP, PG, SP, SW	X	
SLP	SP, PG	PG	X	X
SMP	FR, GR, PG, PO, RN, SP	SP, PG	X	X
SYMLOG	AN, BA, CH, DN, DU, FA, FN, FR, GR, HB, IT, JP, KR, NW, PG, PO, RN, SP, SW, TH, VM	BA, DU, FR, GR, IT, JP, NW, PG, PO, RN, SP, SW, TH, VM		X
VOICES	SP	SP		
WORK*STYLES*	DU, FR, GR, JP, NW	DU, FR, GR, NW	X	X

Key:

AN Anglicized English
AU Australian
BA Bahasa Indonesian
CH Chinese
CN Canadian
DN Danish
DU Dutch
FA Farsi
FC French Canadian
FN Finnish
FR French
GR German
HB Hebrew
IN Indian
IT Italian
JP Japanese
KR Korean
NW Norwegian
NZ New Zealand
PG Portuguese
RN Russian
SG Singaporean
SP Spanish
SW Swedish
TH Thai
UD Urdu
VM Vietnamese

(NCA) = Not currently available

CLI, ESP, MATRIX, PROSPECTOR, and TWI are not included in this table because no materials have been translated.

Although nineteen of the instruments reviewed in this report (BENCHMARKS, COMPASS, EXEC, LBAII, LBQ, LEA, LEADERSHIP SKILLS, L/I, LPI, LSI, MANAGER VIEW/360, MEPS, MLQ, PROFILOR, SLP, SMP, SYMLOG, VOICES, and WORK*STYLES*) have been (or are currently being) translated for international use, the feedback report and development guide are often still in English. Several have developed significant international norm bases (BENCHMARKS, COMPASS, LBAII, LEA, LEADERSHIP SKILLS, LPI, LSI, MLQ, PROFILOR, SLP, SMP, and WORK*STYLES*) and can provide international norms to clients.

Much is unknown, however, about the international validity and reliability of instruments developed and used in the U.S. A reexamination of validity has begun on only eight (BENCHMARKS, LBAII, LPI, MLQ, SLP, SMP, SYMLOG, and WORK*STYLES*), and on no instrument so far has cross-cultural validity research done more than scratch the surface. Questions regarding how applicable Western theories of effective leadership are in different cultures, the transferability and impact of culturally specific managerial jargon (for example, "puts out fires"), cross-cultural reactions to response scales, and normative differences on instruments all need to be investigated.

As usage becomes more widespread, more studies should appear that address basic theoretical and psychometric issues. In the meantime, individual results should be interpreted to international managers with much caution. For more information on using instruments internationally, see Leslie, Gryskiewicz, and Dalton (1998).

CHARACTERISTICS OF FEEDBACK DISPLAY

Type of Display

There are basically two types of feedback display used in these instruments: graphic and narrative. Graphic displays are charts or graphs that provide a visual picture of how managers view themselves in comparison to their raters and the instrument norms. A narrative display is a detailed discussion, based on the manager's results, that provides scores and interpretation and often incorporates some of the strategies (described below) for facilitating change. These narratives are personalized, as compared to boilerplate recommendations for change.

Graphic Display

Graphic displays can provide an excellent visualization of how participants view themselves in comparison to their raters and the instrument norms. There are four main types of graphic displays used across the twenty-four instruments: (1) bar graphs, (2) line graphs, (3) grids or plots, and (4) circumplexes. Field diagrams and quadrants are used less often. A portion of the graphic display for each of the twenty-four instruments is reproduced in the "Summaries" section of this report.

Many of the instruments use a combination of styles to present data. The most commonly used graphic display is the grid/plot, which plots data points on a line representing a possible range of scores (BENCHMARKS, CLI, ESP, LBQ, LEA, L/I, MEPS, MLQ, and PROFILOR).

Table 8

Types of Feedback Display

	GRAPHIC						**NARRATIVE**
Instrument	*Grids/Plots*	*Bar Graph*	*Line Graph*	*Circumplex*	*Field Diagram*	*Quadrant*	
BENCHMARKS	X						
CLI	X						
COMPASS		X		X			
ESP	X	X					X
EXEC			X				X
LBAII						X	
LBQ	X						
LEA	X						X
LEADERSHIP SKILLS		X					X
L/I	X	X		X			X
LPI			X				
LSI				X			X
MANAGER VIEW/360			X				X
MATRIX		X					
MEPS	X	X					X
MLQ	X						X
PROFILOR	X	X					X
PROSPECTOR		X					
SLP			X				X
SMP			X				X
SYMLOG		X			X		X
TWI				X			X
VOICES		X					
WORK*STYLES*				X			X

Other common graphics are bar graphs (COMPASS, ESP, LEADERSHIP SKILLS, L/I, MATRIX, MEPS, PROFILOR, PROSPECTOR, SYMLOG, and VOICES) and line graphs (EXEC, LPI, MANAGER VIEW/360, SLP, and SMP). The circumplex is used in COMPASS, L/I, LSI, TWI, and WORK*STYLES*, and the field diagram is used in SYMLOG.

Narrative Display

Narrative reports are used, to varying degrees, in many instruments, and the use of narrative appears to be increasing with greater computerization of scoring and instrument administration.

Seventeen of the twenty-four instruments (ESP, EXEC, LBAII, LEA, LEADERSHIP SKILLS, L/I, LSI, MANAGER VIEW/360, MEPS, MLQ, PROFILOR, SLP, SMP, SYMLOG, TWI, VOICES, and WORK*STYLES*) use narrative interpretation as a method of revealing areas that may need improvement. For some people this can be a very powerful tool for increasing awareness. Narrative can prove useful over time as well because it does not require the manager to rely on his or her memory of how to read or interpret the accompanying graphic display.

Narrative interpretation differs from development materials in that development materials are "off-the-shelf" manuals, workbooks, and readings, whereas narrative is personalized, based on the manager's individual feedback and output as a result of the scoring process.

Breakout of Rater Responses

The trend in instrument development today appears to be toward full 360-degree feedback (feedback that is collected from boss, peers, and subordinates and delivered to the manager as distinct categories, for comparison with self-ratings). Most instruments reviewed here come with a complete breakout of multiple-perspective feedback (BENCHMARKS, COMPASS, ESP, EXEC, LBAII, LEA, LEADERSHIP SKILLS, L/I, LPI, MANAGER VIEW/360, MATRIX, MLQ, PROFILOR, SLP, SMP, TWI, VOICES, and WORK*STYLES*). Yet others do not, choosing instead to group rater data for comparison to self scores. The instruments that group all raters together are the CLI, LBQ, LEADERSHIP SKILLS, and LSI. PROSPECTOR combines feedback from peers and direct reports but presents superior ratings separately. ESP, EXEC, LEADERSHIP SKILLS, L/I, LPI, LSI, MEPS, MLQ, SLP, SMP, SYMLOG, VOICES, and WORK*STYLES* allow the user to determine if and how feedback is to be broken out. Each of these approaches has its advantages.

Feedback that is broken out by rater group can be more informative than feedback that combines the responses of different rater types. Its impact on the manager is probably greater. No one observes a manager in all possible situations, and what is observed will depend on the rater's relationship to the manager. Subordinates will be able to assess one slice of behavior, whereas peers may see an overlapping but somewhat different slice. Managers' bosses will observe yet another set of skills and behaviors. For example, responses to an item such as "Keeps people up-to-date with information" (PROFILOR) may take very different forms. The boss may get regular telephone calls or written reports, whereas subordinates may receive information irregularly through meetings and communication with peers. In addition, different rater groups give different weights to behaviors they may observe, depending on how relevant those behaviors are to their

Table 9

Breakout of Rater Responses

Instrument	*Supervisor(s)*	*Peer(s)*	*Subordinate(s)*	*All Rater Groups Combined*	*Client Choice*
BENCHMARKS	X	X	X		
CLI				X	
COMPASS	X	X	X		
ESP	X	X	X	X	X
EXEC	X	X	X		X
LBAII	X	X	X		
LBQ				X	
LEA	X	X	X		
LEADERSHIP SKILLS	X	X	X		X
L/I	X	X	X		X
LPI	X	X	X	(OPT)	X
LSI				X	X
MANAGER VIEW/360	X	X	X		
MATRIX	X	X	X		
MEPS				(OPT)	X
MLQ	X	X	X		
PROFILOR	X	X	X	X	
PROSPECTOR	X			X	
SLP	X	X	X	(OPT)	X
SMP	X	X	X	(OPT)	X
SYMLOG					X
TWI	X	X	X		
VOICES	X	X	X	X	X
WORK*STYLES*	X	X	X		X

(OPT) = Optional

unique interactions. Thus, if an instrument presents self data only in comparison to data from one rater group (say, a manager's subordinates) or presents data from all raters averaged together, much of the total behavioral picture and some of the impact may be distorted or missing altogether.

Although it has less impact than breaking out the data from different rater groups, combining rater data into a single group preserves rater anonymity. Because an individual is more likely to be more candid when his or her identity is protected, grouping raters together may increase the quality of individual rater response. When the boss's ratings are broken out, all of that individual's anonymity is forfeited, unless a manager has more than one boss. Knowing (as they should) that their ratings will be displayed separately, bosses may tend to rate the managers more positively than they would if their responses were anonymous, thus lowering the quality of important data. Furthermore, managers may be influenced disproportionately by a boss's ratings, tending to ignore the ratings of subordinates in favor of the boss's opinions.

And, finally, although much research over the years has documented the variance between self-, superior, subordinate, and peer ratings (Harris & Schaubroeck, 1988; Sager, 1990), some instrument authors (for example, CLI and LEADERSHIP SKILLS) report that their analyses showed no significant differences on ratings across groups of raters. They, therefore, encourage participants to distribute questionnaires among superiors, subordinates, and peers but they combine groups of raters in the feedback.

Feedback Delivery Strategies

Because it typically provides a large quantity of data, much of which is negative, the overwhelming impact of 360-degree feedback can be a concern. Rather than just presenting self scores and rater scores, an instrument should build some kind of framework for corrective action into the feedback. People need help sifting through the potentially huge amount of data points that can be provided by feedback of this sort.

Although corrective action must still be inferred from many instruments, standards seem to have been raised in this area in recent years. There are now more instruments than ever that provide supplemental information to use as guidelines in sorting through and prioritizing the self data and rater data comparisons. Our review of instruments found that there are at least seven strategies used for creating focus in feedback for development: (1) comparison to norms, (2) highlighting largest self/rater discrepancies; (3) item-level feedback, (4) highlighting high/low items and scales, (5) comparison to an ideal, (6) importance to job or success, and (7) "do more/do less" information. A combination of these strategies can be used along with a narrative interpretation.

Comparison to Norms

Comparison to norms is the most widely used feedback strategy among the instruments we reviewed. Twenty-four of the instruments include comparison to a norm base as part of the graphic display (BENCHMARKS, CLI, COMPASS, ESP, EXEC, LBAII, LBQ, LEA, LEADERSHIP SKILLS, L/I, LPI, LSI, MANAGER VIEW/360, MATRIX, MEPS, MLQ, PROFILOR,

Table 10

Feedback Delivery Strategies

Instrument	*GRAPHIC*							*NARRATIVE INTERPRETATION*
	Comparison to Norms	*Highlighting Self/Rater Discrepancies*	*Item-level Feedback*	*Highlighting High/Low Items/Scales*	*Comparison to Ideal*	*Importance to Job or Success*	*"Do More/ Do Less" Information*	
BENCHMARKS	X	X	X	X		X		
CLI	X	X	X	X				
COMPASS	X	X	X	X		X	X	
ESP	X	X	X	X		X		
EXEC	X	X	X		(OPT)	(OPT)	X	
LBAII	X	X	X		X			
LBQ	X				X			
LEA	X	X		X		(OPT)		
LEADERSHIP SKILLS	X	X	***	X		X	X	X
L/I	X	X	X	X	X			X
LPI	X	**	X	**				
LSI	X	X	X	X				
MANAGER VIEW/360	X	X	X	X				X
MATRIX	X	X	X	X			X	X
MEPS	X	X	X	X				X
MLQ	X	X	X					
PROFILOR	X	X	X	X		X		X
PROSPECTOR	X		X					
SLP	X	X	*					X
SMP	X	X	*				(OPT)	X
SYMLOG	X	X	X	X	X	(OPT)	X	
TWI	X	X		X		X		
VOICES	X	X	X	X		X	*	X
WORK*STYLES*	X	X	X	*	X			

*In narrative. **Optional in self-scored version. Displayed in computer-scored version. ***In the graphic display. (OPT) = Optional

PROSPECTOR, SLP, SMP, SYMLOG, TWI, VOICES, and WORK*STYLES*). In most displays, the norm base is a sample of all managers who have taken the instrument. There are some exceptions to this rule, however. On the MLQ, for example, the comparison to norms is a comparison to organizational or individualized group norms, rather than to a larger or more general sample of managers. Database norms for that instrument can be found in the trainers' manual. On The PROFILOR, the basic comparison group is the middle 50% of the total norm base, but the client organization is given the option of having managers' scores compared to organization-specific norms. Many of the instrument vendors are beginning to encourage organizations to establish and use their own norms.

Comparisons of this sort help managers to answer the question, "How good are my scores relative to the scores of other managers?" Comparing the scores of middle managers to a norm base of senior managers may cause the former to draw more negative conclusions about their competence than is really appropriate. Thus, it is important to know whether the norms used for comparison are norms appropriate for the target population (see Table 11).

Most of the instruments with a general target audience use a norm group consisting of managers from all levels (CLI, COMPASS, LBQ, LEA, LEADERSHIP SKILLS, L/I-LPI, LSI, MANAGER VIEW/360, MATRIX, MEPS, MLQ, PROFILOR, PROSPECTOR, SMP, SYMLOG, TWI, VOICES, and WORK*STYLES*). Although LEADERSHIP SKILLS is targeted toward middle levels, its use has grown beyond this group and the norms now encompass managers from other levels as well. BENCHMARKS is unique in that a manager's level in the organization is matched with the appropriate norm group when that person's feedback is produced. The ESP, EXEC, and SLP are the only instruments that use norm groups consisting exclusively of upper-level managers. Norms for diverse populations (for example, gender, industry, country) can usually be found in the trainer's manuals.

Across instruments, comparisons to norms can take two forms: standard scores and percentile rankings. A standard score is a statistical computation that allows individual scores to be compared to a distribution of scores based on the mean and standard deviation of the total sample. A percentile ranking represents the percentage of persons who have lower scores than the individual being ranked.

The CLI, LEADERSHIP SKILLS, MANAGER VIEW/360, and MEPS are the only instruments that rely on standard scores to make comparisons. The remainder of the instruments that provide norms in the feedback (except SYMLOG) use percentile rankings. The PROFILOR and ESP superimpose the actual means on a bar representing the middle 50% of responses in the norm group. SYMLOG also uses a bar graph to compare individual scores to organizational norms but does not plot results in terms of percentiles. Instead, the average ratings for each response (either "Rarely," "Sometimes," or "Often") are plotted against the "Most effective" response. Two instruments (LBAII and MEPS) do not provide norms on the feedback itself, but instead include norms in either the trainer-support materials or in the form of a group (organizational) report.

How often a vendor updates norms will depend on assumptions about the instrument. If the skills and abilities measured by an instrument are believed to be sensitive to changes over time, then norms should be updated on a regular basis. When this is the case, skills do not disappear from effective managers' repertoire, but instead the relative importance of them changes with

Table 11

Target Audience and Instrument Norms

Instrument	*Management Level in Norm Group*	*Current (Self)* Sample Size for Norms*	*Norms Presented as Percentiles*	*Norms Presented as Standard Scores*
BENCHMARKS	Middle or upper	1,828 or 2,972	X	
CLI	Mixed	1,767		X
COMPASS	Mixed	1,100	X	
ESP	Upper	3,062	X	
EXEC	Upper	1,000	X	
LBQ	Mixed	715	X	
LEA	Mixed	31,000	X	
LEADERSHIP SKILLS	Mixed	3,671		X
L/I	Mixed	420	X	
LPI	Mixed	4,800	X	
LSI	Mixed	9,207	X	
MANAGER VIEW/360	Mixed	5,000		X
MATRIX	Mixed	5,000	X	
MEPS	Mixed	4,700		X
MLQ	Mixed	1,006	X	
PROFILOR	Mixed	**		
PROSPECTOR	Mixed	698		
SLP	Upper	1,000	X	
SMP	Mixed	1,000,000	X	
SYMLOG	Mixed	567		
TWI	Mixed	1,518	X	
VOICES	Mixed	773	X	
WORK*STYLES*	Mixed	444	X	

*Sample size for rater norms is typically 3-6 times larger than sample size for self norms. **Norms are based on all participants who have taken the instrument since 1991.

LBAII is not included in this table because the graphic display does not compare the manager's data to norms. Norms for the LBAII are included in the trainers' guide.

trends in organizations. For example, managers today are more aware of the importance of teamwork as organizations have become flatter in their structure. If, on the other hand, there is no reason to believe that the importance of skills and abilities will fluctuate over time, and if there is statistical evidence to support this, then cumulative norms or norms that include everyone who has taken the instrument are sufficient. Newly developed instruments and instruments that have recently been translated will most likely use cumulative norms because only a small number of managers will have taken the instrument.

The sample sizes of the norm groups for the instruments we reviewed range from as low as 420 (L/I) to as large as 1,000,000 (SMP), which represents the total number of managers who have completed these instruments to date.

Highlighting Largest Self/Rater Discrepancies

Although all multiple-perspective instruments, by definition, compare the self-view to the views of others, not all use the graphic display to highlight the greatest or most significant discrepancies (see Table 10, p. 30). Some displays use asterisks or other symbols to indicate large self/rater discrepancies (COMPASS and ESP). Only one (COMPASS) highlights the items or scales having discrepancies that are statistically significant. Other instruments provide a list of items or scales that have the largest self/rater difference (BENCHMARKS, CLI, EXEC, L/I, LSI, MANAGER VIEW/360, MEPS, PROFILOR, SLP, SMP, and SYMLOG). In addition, SYMLOG highlights self/rater discrepancies by its display of data as points in three-dimensional physical space. With the LPI, the scoring software can highlight self/rater differences greater than two scale points. EXEC, SLP, and SMP highlight feedback by sorting it into four groups: "Visible strength" (self-rating is high and other ratings are high), "Unrealized strength" (self-rating is lower than other ratings), "Acknowledged soft spot" (self-rating is low and other ratings are low), or a "Blind spot gap" (self-rating is higher than other ratings). LEADERSHIP SKILLS has an algorithm built into the software to track patterns of difference between self-responses and raters' responses. If there is a clear pattern of difference, a narrative comment on this pattern is included in the overview report. WORK*STYLES* presents a discussion highlighting large self/rater discrepancies in the narrative report.

One additional strategy used but not found in the graphic display itself is to provide users, either during the certification process or in the trainers' manual, a "rule of thumb" or cutoff for taking special note of self/rater discrepancies (for example, BENCHMARKS, CLI, ESP, LEADERSHIP SKILLS, MLQ, PROFILOR, SYMLOG, and TWI). Although this cutoff point may have been derived from statistical tests of significance or may represent one standard deviation for the scales, the actual way it was determined is not always obvious.

Item-level Feedback

The use of item-level feedback in managerial-assessment instruments presents an interesting dilemma. It is hard to know how to improve one's score on the abstract competencies that scales can represent. In order to act on their feedback, people need the concrete behavioral information inherent in items. The items define the meaning of scales, which are often too global to provide the kind of detail necessary to plan a change strategy. So item-level feedback can have great utility. Yet psychometricians argue against giving feedback on individual items because, statistically speaking, individual items are relatively unreliable. In fact, that is one reason why items are grouped into scales: scales have a stability that items lack. Feedback on items can therefore be useful but unreliable, whereas feedback on scales can be reliable but less useful.

Twenty-one of the instruments reviewed here do give feedback at the item level (BENCHMARKS, CLI, COMPASS, ESP, EXEC, LBAII, LEADERSHIP SKILLS, L/I, LPI, LSI, MANAGER VIEW/360, MATRIX, MEPS, MLQ, PROFILOR, PROSPECTOR, SLP, SMP, SYMLOG, VOICES, and WORK*STYLES*). On the LEADERSHIP SKILLS, SLP, and SMP, items are discussed in the narrative report but are not presented in the graphic display. The three instruments that completely avoid item-level feedback are LBQ, LEA, and TWI.

Highlighting High/Low Items and Scales

Seventeen of the instruments reviewed in this report graphically display participants' highest and lowest scores on items and scales (BENCHMARKS, CLI, COMPASS, ESP, LEA, LEADERSHIP SKILLS, L/I, LPI, LSI, MANAGER VIEW/360, MATRIX, MEPS, PROFILOR, SYMLOG, TWI, VOICES, and WORK*STYLES* [in narrative]). These presentations take several forms, including graphs (i.e., bar graphs), listing the highest or lowest scores (i.e., top fifteen scores), and using symbols (i.e., *). With the LPI, scoring software can provide a summary of the five most and the five least frequent behaviors.

In the midst of receiving voluminous feedback, participants can use high and low score summaries to gain a quick overview of their strengths and weaknesses. But when the high and low scores presented are item scores, there is a danger that the listing may be made up of a smattering of items from many different scales and may thus provide a very unreliable summary look at the data.

Comparison to an Ideal

Comparison of one's own scores to an ideal can take many forms. The ideal can be provided by the manager and compared to self-report performance data. This comparison would tell the manager how he or she is doing compared to the performance he or she aspires to. Another type of comparison to ideal compares self-views or raters' views to a theoretically derived model of effective management. This strategy allows managers to compare their performance to a model of ideal behavior.

Comparison to an ideal is a strategy used by only five of the instruments we examined (LBAII, LBQ, and SYMLOG). All five compare self-view or rater data to a theoretically based ideal. In addition, SYMLOG provides comparison of performance data to self-generated and rater-generated views of ideal behavior.

EXEC offers clients an optional comparison rating on the ideal of effectiveness.

Importance to Job or Success

BENCHMARKS, COMPASS, ESP, EXEC (optional), LEA (optional), LEADERSHIP SKILLS, PROFILOR, SYMLOG (optional), TWI, and VOICES all provide feedback on the perceived importance of scales or items to effectiveness in one's job or to success in one's organization.

This form of feedback can be a very powerful way of prioritizing which parts of the feedback may need greatest attention, especially when the manager and his or her boss agree. When the manager and boss do not agree, importance data can provide a fairly nonthreatening way to begin a conversation about the overall results. For example, a low score on a scale such as "Balance between life and work" (BENCHMARKS) may be something a manager would want to work on improving, but in making that choice, the manager should know that high scores on balance may not be important for success in one's job or organization and may, in fact, be deleterious.

Again, caution is advised. Importance data are perceptual and may reflect people's impressions of what has gotten executives to the top and not what is considered most important to an organization. Ratings may vary depending on the perspective of the person providing the data (the manager's boss, subordinates, or peers). Middle-level managers may rate importance for success differently than executives. And ratings may change over time, with changes in organizational culture or business strategy. For all these reasons, the reliability of such data may be low, and no instrument providing this type feedback has assessed the reliability of these ratings.

"Do More/Do Less" Information

COMPASS, EXEC, LEADERSHIP SKILLS, MATRIX, SMP (optional), SYMLOG, and VOICES are the only instruments among this group that collect raters' perceptions of areas where a manager should "Do more/Do less" or "Needs improvement." This kind of information can be extremely useful in that it allows the manager to directly assess raters' satisfaction with his or her behavior.

For some management practices, what leads to effectiveness can be related to situational, organizational, or individual needs. For example, effective managers may have low ratings from some raters on items or scales because lower ratings are desired. A low to moderate score on a scale assessing the degree to which a manager structures subordinates' work could mean the manager is not structuring enough or it could mean that the manager is not doing much structuring and that higher levels are not desired or necessary. In other areas, such as listening to subordinates or making sure they understand how group goals relate to organizational goals, there may be less need for this type of information.

DEVELOPMENTAL AND SUPPORT MATERIALS

Although a clear graphic display built around several strategies for interpretation will allow managers to know what scores to pay attention to, managers may still lack awareness of all that these scores can mean. They will have the "What?" but still lack answers to the "So what?" and the "Now what?" With any feedback process, the "So what?" question can be addressed by interpretive material, presented either one-on-one or in a printed development guide. The "Now what?" question can be addressed by a goal-planning process, which can be a printed set of materials or a trainer-led session.

Support for Managers

Table 12 outlines the types of developmental support available for managers receiving feedback on these twenty-four instruments. Most of the instruments come with some information or guidance. The support can be in the form of a detailed interpretive and planning guide (BENCHMARKS, CLI, COMPASS, ESP, EXEC, LBQ, LEA, LEADERSHIP SKILLS, L/I, LPI, LSI, MANAGER VIEW/360, MATRIX, MEPS, MLQ, PROFILOR, PROSPECTOR, SLP, SMP, SYMLOG, TWI, VOICES, and WORK*STYLES*). The interpretive and development guides often contain background on the domains measured by the instrument; explanations of how the scales are related to one another; details on how the instrument was scored; and exercises to summarize, organize, and set goals based on the results. With LBAII and MANAGER VIEW/360, this information is built into the narrative generated by the software.

Summary worksheets, which help participants organize their feedback and set goals, may be included in an interpretive or development guide. Developmental workshops for managers also are available from many authors or vendors (BENCHMARKS, COMPASS, LEA, LEADERSHIP SKILLS, LPI, MANAGER VIEW/360, MATRIX, MLQ, PROFILOR, SYMLOG, TWI, VOICES, and WORK*STYLES*). Additional materials are often provided to participants in these workshops.

Several of the instrument vendors (COMPASS, ESP, EXEC, LBAII, LEADERSHIP SKILLS, L/I, LPI, LSI, MANAGER VIEW/360, MATRIX, MEPS, PROFILOR, SLP, SMP, SYMLOG, and WORK*STYLES*) provide a toll-free phone number for trainers or managers to call and discuss their results with an author or trained facilitator. This type of interpretive guidance can be an invaluable service for trainers responsible for facilitating feedback, for managers using an instrument with no certified trainer, and for organizations that do not have the resources necessary for individual consultation.

Post-assessment

Post-assessment is available with seventeen of these instruments (COMPASS, ESP, EXEC, LBAII, LEA, LEADERSHIP SKILLS, LPI, LSI, MANAGER VIEW/360, MATRIX, MLQ, PROFILOR, PROSPECTOR, SLP, SMP, SYMLOG, and WORK*STYLES*). The availability of post-assessment is built into LEADERSHIP SKILLS and WORK*STYLES* because each is reusable software. WORK*STYLES* allows for infinite reassessment by self and others, whereas LEADERSHIP SKILLS allows for up to thirty reassessments by others.

The reassessment process can include comparisons over time to assess the extent to which self and raters are aware of change in the leadership behaviors of the manager, feedback on the extent to which engaging in certain behaviors would make the person more effective, and evaluation of goal achievement. The integrity of post-assessment data, however, depends on our knowledge of the instrument's test-retest reliability. That is, if we know the scales remain stable given no real change in the manager, we can trust that any post-assessment difference is a real performance change and not just item or scale instability. Unfortunately, most of the instruments offering post-assessment have not yet done this type testing: The test-retest reliabilities of scales are known only for BENCHMARKS, CLI, COMPASS, LBAII, LEA, LEADERSHIP SKILLS, LPI, MANAGER VIEW/360, MATRIX, MLQ, SYMLOG, and WORK*STYLES*; studies have not

Table 12

Developmental Materials for Participants

Instrument	*Development and Planning Guide*	*Workshop*	*Post-assessment*	*Vendor "Hotline"*	*Summary Worksheets/Cards*
BENCHMARKS	X	X			X
CLI	X				
COMPASS	X	X	X	X	X
ESP	X		X	X	X
EXEC	X		X	X	
LBAII			X	X	X
LBQ	X				
LEA	X	X	X		X
LEADERSHIP SKILLS	X	X	X	X	X
L/I	X			X	X
LPI	X	X	X		X
LSI	X		X	X	X
MANAGER VIEW/360	*	X	X	X	X
MATRIX	X	X	X	X	X
MEPS	X			X	X
MLQ	X	X	X		X
PROFILOR	X	X	X	X	X
PROSPECTOR	X		X		X
SLP	X		X	X	
SMP	X		X	X	X
SYMLOG	X	X	X	X	X
TWI	X	X			X
VOICES	X	X			X
WORK*STYLES*	X	X	X	X	X

*Built into computer-generated narrative feedback.

yet been conducted on ESP, EXEC, LBQ, L/I, LSI, MEPS, PROFILOR, PROSPECTOR, SLP, SMP, TWI, or VOICES.

Post-assessment can be invaluable in enhancing the value of feedback and in helping managers change over time. All of these instruments are intended to be development tools, and continuous feedback is critical in a good developmental experience. As technology in the field becomes enhanced, this should be an area where much improvement will be seen.

Support for Trainer

Support for trainers can take several forms, including certification workshops, trainers' guides/manuals, supplemental norms, and other support such as videos.

Certification Workshops

Most vendors require some form of certification or authorization before instruments can be purchased or used. Some require users to attend certification workshops, whereas others review the users' professional credentials. The intent is usually to make sure clients are fully versed in how to read, interpret, and present the feedback, as well as how to deal with questions and problems. Only nine (LBAII, LBQ, LEADERSHIP SKILLS, L/I, LPI, LSI, MANAGER VIEW/360, MEPS, and MLQ) do not require certification or review of professional competence to purchase and give feedback on the instrument.

Trainers' Guides/Manuals

Trainers' guides often include step-by-step guidelines for administering and giving feedback on the instrument, detailed information on the development of the instrument and its theoretical origin(s), norms or typical profiles from various organizations or subsamples, and resources for additional information. Trainers can receive a guide through participation in a workshop (BENCHMARKS, CLI, COMPASS, ESP, EXEC, LBAII, LEA, LEADERSHIP SKILLS, LSI, MANAGER VIEW/360, MATRIX, MEPS, MLQ, PROFILOR, PROSPECTOR, SLP, SMP, SYMLOG, TWI, VOICES, and WORK*STYLES*) or through the instrument vendor (LBQ and LPI).

Supplemental Norms

Group or organizational reports are available for all twenty-four instruments. With the LPI, scoring software can provide group reports. These summary reports provide organizational or group norms to which individual managers can compare their own results. Norms for other groups or subsamples (for example, public sector versus private sector, health care workers, student leaders, and high-level executives) are available for BENCHMARKS, CLI, COMPASS, ESP, EXEC, LBQ, LEA, LEADERSHIP SKILLS, L/I, LPI, LSI, MANAGER VIEW/360, MATRIX, MEPS, MLQ, PROFILOR, SLP, SMP, SYMLOG, TWI, VOICES, and WORK*STYLES*.

Table 13

Support for Trainer

Instrument	*Trainers' Guide/Manual*	*Workshop*	*Certification Required**	*Supplemental Norms Group Report**	*Video*	*Other*
BENCHMARKS	X	R	X	X		
CLI	X	X	X	X		
COMPASS	X	R	X	X	X	X
ESP	X	R	X	X		X
EXEC	X	R	X	X		X
LBAII	X	X			X	X
LBQ	X			X		X
LEA	X	X	X	X	X	X
LEADERSHIP SKILLS	X	X		X		X
L/I	X	X		X		X
LPI	X	X		X	X	X
LSI	X	X		X	X	
MANAGER VIEW/360	X	X		X		X
MATRIX	X	R	X	X	X	X
MEPS	X	X		X		
MLQ	X	X		X	X	
PROFILOR	X	R	X	X		X
PROSPECTOR	X	X	X			
SLP	X	R	X	X		X
SMP	X	R	X	X		X
SYMLOG	X	R	X	X		
TWI	X	R	X	X		
VOICES	X	R	X	X		X
WORK*STYLES*	X	R	X	X	X	X

*See summaries for detail. R = Required attendance for use.

Other Support

At least seven instruments can be accompanied by videos (COMPASS, LBAII, LEA, LPI, LSI, MATRIX, and MLQ). These variously explain the theory or model behind the instrument, describe the scales, examine issues related to managerial behaviors, or take the participant through exercises related to the feedback.

Scoring Process

Two methods are currently being used to score instruments: (1) the participant or trainer hand-scores the instrument, or (2) a computer program does the scoring (at the vendor's location or on-site).

Of the instruments we reviewed, most can be scored by the vendor (BENCHMARKS, CLI, COMPASS, ESP, EXEC, LBAII, LEA, LEADERSHIP SKILLS, L/I, LPI, LSI, MANAGER VIEW/360, MATRIX, MEPS, MLQ, PROFILOR, PROSPECTOR, SLP, SMP, SYMLOG, TWI, VOICES, and WORK*STYLES*). Some of these *must* be vendor-scored (CLI, LEA, MATRIX, MEPS, PROSPECTOR, and TWI) but quite a few of these can also be hand-scored if desired (LBAII, LBQ, LPI, LSI, SLP, and SMP). Currently, manual scoring is the only option for the LBQ. Several instruments (BENCHMARKS, COMPASS, ESP, PROFILOR, SYMLOG, VOICES, and WORK*STYLES*) offer the option of licensing the scoring program, so that computer scoring can be done on-site. Acumen International's products (LEADERSHIP SKILLS and WORK*STYLES*) are individually self-administered and self-scoring software products, giving the client complete control over input, processing, and printing of reports. LEADERSHIP SKILLS is available in paper-and-pencil format as well, for later computer entry and scoring, and has been examined for across-form consistency. Both products from Acumen International have an "expert system" report-generator that checks over managers' scale scores for similarities. If scales differ only by a slight margin, the scoring program will generate an additional six to twenty-four test questions on-line to arrive at sufficient scale differentiation before the rater completes his or her task. EXEC, LBAII, LEADERSHIP SKILLS, LPI, MANAGER VIEW/360, SLP, SMP, VOICES, and WORK*STYLES* are also available as self-scoring software.

The CLI, a vendor-scored instrument, has a scoring program that checks for possible clerical errors on answer sheets. The technique, which the author calls "procedural checks," looks for patterns in the data. If someone filled out a form incorrectly—such as circling the same response option over and over, skipping over questions, circling answers out of sequence, marking extreme ratings (i.e., all high scores or all low scores), or providing the same responses on opposite questions—a warning will appear in the feedback.

Three types of accuracy "checks" are provided through the CLI scoring. They include the percentage of self-responses and rater responses on each alternative of the 6-point scale, the number of inconsistent responses, and the number of omitted responses. The last part of the procedural check indicates the degree of acquaintance between self and raters. After the data are checked for problems, "Marginal," "Doubtful," or "Valid" will be printed on the feedback. SYMLOG scoring programs execute similar checks.

Table 14

Scoring Process

	MANUAL	*COMPUTER*			
Instrument	*Hand-scored*	*Vendor*	*Licensed-scoring Program*	*Self-administered, Self-scoring Software*	*Available on the World Wide Web*
BENCHMARKS		X	X		X
CLI		X			
COMPASS		X	X		
ESP		X	X		
EXEC		X		X	
LBAII	X	X		X	
LBQ	X				
LEA		X			
LEADERSHIP SKILLS		X		X	X
L/I		X			
LPI	X	X		X	
LSI	X	X			
MANAGER VIEW/360		X		X	
MATRIX		X			
MEPS		X			
MLQ		X			X
PROFILOR		X	X		X
PROSPECTOR		X			
SLP	X	X		X	
SMP	X	X		X	
SYMLOG		X	X		X
TWI		X			
VOICES		X	X	X	X
WORK*STYLES*		X	X	X	X

Choosing a computer-scored or manually scored instrument may be nothing more than balancing issues of time and quality of feedback. A hand-scored instrument can have several advantages. It is usually lower in cost than other instruments, hand-calculating of results helps people understand how their scores are derived, and the ability to turn around the scoring quickly allows participants to receive immediate feedback once the instrument has been administered.

Manual scoring has several pitfalls as well. Scoring accuracy can be a serious issue, as can the overall look of the feedback report. Manually produced feedback rarely results in a report that is "production" quality. Another disadvantage is that the confidentiality of rater data can be jeopardized in the scoring process.

Although vendor-scored instruments typically will require at least one week to be scored and returned, confidentiality of rater data is guaranteed, accuracy is enhanced, and output tends to be "production" quality. Given the important mission of management-development efforts and the power of a feedback intervention, the drawbacks to hand scoring should steer us toward computer-generated feedback. Licensing arrangements with vendors are becoming more common and can allow organizations to bring the scoring process on-site, reduce turnaround time, and still provide high accuracy and "production" quality.

We are on the edge of a new process for instrument completion using the World Wide Web. Five of the instruments we reviewed—**BENCHMARKS, LEADERSHIP SKILLS, MLQ, PROFILOR,** and **WORK*STYLES***—are presently accessible through this medium. These instruments use the Web primarily as a data-collection tool. The electronic completion of questionnaires offers several advantages, such as the elimination of paper shuffling or the passing around of diskettes, and the reduction of instrument completion and scoring time. For global organizations whose employees are disperse, this method can offer several advantages over paper-and-pencil completion, such as the distribution of feedback reports via the Web. Of course, access to the Web and familiarity and comfort with personal computers among all prospective raters will precipitate its use. While this may become the latest trend in management assessment, it still will require compliance with traditional testing standards. Form equivalence will, for example, be necessary to ensure that scores collected for an instrument by different media (computer disk, paper-and-pencil, and the Web) are comparable. In addition, special provisions may need to be made to ensure that confidentiality is maintained. The technological age where data are collected via facsimile transmissions and electronic data-gathering systems is upon us. For more information on how advances in technology are affecting the 360-degree-feedback process, see Fleenor and Prince (1997).

OTHER CONSIDERATIONS

Cost

The instruments reviewed here range in price from $9.95 for the LBQ to $400.00 for ESP (see Table 15). What is included in a single package is as varied as the cost. The cost should cover, however, as a bare minimum, one self-report form, at least one rater form, scoring, and a development guide.

Table 15

Instrument Cost

Instrument	*Cost per Manager*	*Costs Include*
BENCHMARKS	$245.00	1 self and 11 observer forms, scoring, development guide
CLI	165.00	1 self and 5 observer forms, scoring, development guide
COMPASS	295.00	1 self and 8 observer forms, scoring, development guides and planning guides
ESP	400.00	1 self and 2 observer forms, scoring, interpretive guide
EXEC	141.00	1 self and 3 observer forms, scoring, and interpretive guide
LBAII	29.50	1 self and 8 observer forms, 1 summary sheet, scoring, instructions
LBQ	9.95	1 self and 3 observer forms
LEA	300.00	1 self and observer forms, development guide, scoring
LEADERSHIP SKILLS	175.00	software and vendor scoring for 1 manager, workbook, interpretive guide*
L/I	175.00	1 self and 8 observer forms, scoring, feedback report
LPI	23.90	1 self and 3 observer forms, self-scoring instructions, development guide
LSI	70.00	1 self and 5 observer forms, development guide, LSI Profile summary
MANAGER VIEW/360	85.00	software scoring for 1 manager, feedback report, interpretive guide*
MATRIX	350.00	1 self and 10 observer forms, scoring
MEPS	125.00	1 self and 6 observer forms, scoring, development guide
MLQ	125.00	1 self and 6 observer forms, scoring
PROFILOR	275.00	1 self and 10 observer forms, scoring, development guide, development plan
PROSPECTOR	195.00	1 self and 10 observer forms, scoring, feedback, learning guide
SLP	105.00	1 self and 3 observer forms, scoring, interpretive guide
SMP	105.00	1 self and 3 observer forms, scoring, interpretive guide
SYMLOG	100.00	1 self and 7 observer forms, scoring, team-building exercises
TWI	97.00	1 self and 3 observer forms, scoring, report*
VOICES	250.00	1 self and 12 rater disks, scoring, 10 standard feedback reports
WORK*STYLES*	175.00	software scoring for 1 manager, feedback report*

*Scoring software is at additional cost.

There doesn't appear to be a clear relationship between pricing and overall quality of development. There is, however, a relationship between price, quantity of materials included, and level of support provided. The higher-priced instruments tend to include vendor scoring and high-quality development materials for the participant as part of the listed price.

Length

The length of an instrument should be a minor consideration when compared to an instrument's overall focus and development. Some managers, however, may find long instruments and the feedback they produce to be too time-consuming, cumbersome, and difficult to process. On the other hand, a short instrument may seem superficial and may not provide enough feedback for data-oriented individuals.

Long and short instruments appear to be in about equal supply. Sixteen of the twenty-four instruments we reviewed have less than a hundred items. The remaining eight instruments contain a hundred or more items. The exact length of each instrument is given in Table 16.

One variable in the length of an instrument is the issue of customization. Some instruments (COMPASS, ESP, LEADERSHIP SKILLS, LSI, MEPS, PROFILOR, SLP, SMP, VOICES, and WORK*STYLES*) have an "open architecture" that allows for items to be added based on client request. Although this is a feature designed to meet customer needs, there is currently professional disagreement about the degree to which this practice reduces the integrity of the instrument or adds to our knowledge base about emerging demands of leadership.

CONCLUSIONS

In this introduction, we have discussed the trends we have noted in the use and development of multi-rater feedback instruments for managers. Among these trends are: (1) more ongoing research and refinement of instruments; (2) more information being provided to users, especially in the area of rater data; (3) an increased customer orientation; (4) the increased international use of feedback instruments; (5) the enhanced use of computerization and technology; and (6) more sophistication and elegance in the feedback display. Many of these trends are positive; the outcomes of others are as yet unknown.

The first trend is toward more research being conducted in the development of these instruments. Some of the older, more established instruments have been studied continuously by research-oriented authors or vendors and continue to be used by management and leadership researchers. While we are not convinced that the typical client for these products is getting more sophisticated about the importance of reliability and validity, we do know they are demanding better quality tools. And research seems to be key to producing exemplary assessment-for-development tools.

Despite the ongoing research and refinement of multi-rater instruments, several questions related to gender and ethnic differences and the measurement of leadership effectiveness in noncorporate environments remain unanswered. Most research to date has been conducted using

Table 16

Length of Instruments

Instrument	*Number of Items*	*Customization Available*
BENCHMARKS	164	
CLI	100	
COMPASS	84	X
ESP	140	X
EXEC	87	
LBAII	20	
LBQ	50	
LEA	84	
LEADERSHIP SKILLS	116	X
L/I	156	
LPI	30	
LSI	240	X
MANAGER VIEW/360	100	
MATRIX	53	
MEPS	98	X
MLQ	45	
PROFILOR	159	X
PROSPECTOR	48	
SLP	88	X
SMP	145	X
SYMLOG	26	
TWI	64	
VOICES	86	X
WORK*STYLES*	108	X

white male managers (in large corporations), students, or military personnel. We still need to learn more about possible differences in the scores, reliability, and validity of these instruments for (1) women, (2) people from various ethnic groups, and (3) managers in public-sector and nonprofit organizations. Some gender-difference research is being done, as is research on public-sector leadership; however, little research concerned with ethnic differences or rater bias across ethnic groups has been carried out. Answers to these questions are critical for these instruments to be used effectively and appropriately in all areas of management.

A second trend is toward providing users with more data in general, and specifically, with more breakouts of rater data. In 360-degree feedback, comparison of self-ratings to the ratings of the boss, peers, and subordinates is becoming accepted as a customary part of the process. It is believed that discrepancies between self-ratings and the ratings of others will engender developmental efforts on the part of the manager. Although 360-degree feedback continues to grow in popularity, we know little about the trade-off between impact and confidentiality. For example, we are still unsure of the implications of breaking out the ratings from one's boss. Is delivery of this information by a third party (or receiving it alone) the most constructive way of doing what amounts to a performance appraisal? Or can the impact of this information be too powerful, possibly causing the target manager to become defensive and less likely to accept and to act on the feedback?

The third trend reflects an increased customer orientation on the part of instrument developers. At one time, instrument development was mostly an academic undertaking—a primary use of these instruments was for research purposes. Today, managers are the biggest market for multi-rater instruments. Features such as customization of the item pool and the assessment dimensions, norms for client organizations, and post-assessment for use after feedback and training are becoming increasingly common. Frequently clients wish to use dimension names that are relevant to their organization or to compare the ratings of their managers to industry norms. Aggregate reports or group profiles appear to be another service that is frequently requested by client organizations. These reports offer organizations a glimpse at data that traditionally have been available only to the target manager him- or herself. Of course, as customization increases, standardization decreases, which may mean that reliability and validity studies conducted on the "standard" versions of multi-rater instruments are not applicable to customized versions of the instrument. As discussed previously, there are pros and cons to using multi-rater feedback instruments for post-assessment. One of the biggest drawbacks of this practice is that change may actually have occurred but the instrument is unable to detect this change because of various measurement artifacts (Cronbach & Furby, 1970; Golembiewski, 1989).

The fourth trend is the increasing international use of feedback instruments. Whereas twenty years ago virtually no instruments were used outside the United States, today international markets are opening up and most vendors are selling or using their products, at least experimentally, in other countries.

Virtually all leadership theories on which instruments are based have been developed through thinking and research focused on American managers in U.S.-based corporations. We have little data so far on cross-cultural differences. Do managers in other cultures tend to score lower or higher than American managers? Do significant leadership competencies tend to differ across cultures? Is the process of asking peers and direct reports for feedback an accepted practice in all parts of the world? We also have little data on the face validity of Western instruments in other cultures or on how managers in other countries respond to the feedback these tools provide. In other words, we know almost nothing about how these are received or the impact the data may have. And we do not know whether scores are reliable or valid across cultures—whether higher scores on the instruments are related to more effective performance for international managers.

The fifth trend is toward enhanced use of computerization and technology in both scoring and instrument administration. With PC-based software gaining popularity, the availability of facsimile transmissions, and access to the World Wide Web, pencil-and-paper forms will become a thing of the past. Vendor scoring may continue to provide the best quality feedback report, but enhancements in the Internet and desktop publishing capabilities have allowed computer-based products to catch up. Internet and PC-based products have a definite advantage over vendor-scored products in terms of a much shorter turnaround time in the administration, scoring, and reporting of the feedback results.

One of the biggest issues surrounding electronic data-gathering processing systems is adequate protection of the information. The whole 360-degree process hinges on the belief that the data are confidential. Securing Web and computer communication sites will continue to be critical concerns for both instrument users and developers. While this may be the latest trend in management assessment, questions about form equivalence should not go unanswered. Do, for example, different conditions under which instruments are administered result in different results? Is the electronic completion of surveys easier than the paper-and-pencil version, so that raters will provide more accurate feedback? Or, will an unfamiliarity with computer technology cause some raters to provide less accurate ratings? More research needs to be done in this area before these questions can be answered definitively.

The sixth trend is toward more sophistication and elegance in the feedback display. Because clients have begun to request clearer feedback and developers have become more experienced in providing such feedback, the reporting of multi-rater feedback has become better, more understandable for managers, and, we hope, more enhancing to the impact of the feedback experience.

Little research has, however, examined how much and what kind of impact feedback does have. For example, researchers are only beginning to consider whether or not feedback affects self-objectivity and behavior, as well as whether enhanced self-awareness is related to behavior change (or increased effectiveness). This is related to yet another issue: the self-interpretation of feedback from an instrument. To what extent is competent professional guidance necessary to maximize understanding and to facilitate the appropriate impact of feedback?

Continuous quality is another enduring issue for instrument developers. We have tried to highlight the importance of continuous improvement in the field of leadership instrumentation. No multi-rater feedback instrument can ever be considered a finished product as long as we know so little about the impact of feedback and about the cross-cultural use of feedback instruments.

We are encouraged by the fact that research and development are ongoing in all these areas. Progress has been made and continues to be made. And the customers for these products—managers and human resource professionals—can drive the process by continuing to increase their understanding of the use and development of feedback technologies and by continuing to look for quality products for their organizations.

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SUMMARIES

The information contained in these summaries is correct, to our knowledge, as of September 1, 1997. Because of the rapid pace of change in this field, very recent revisions or additions to instruments or their accompanying materials may not be reflected here. Please contact the vendors for more information on particular instruments.

BENCHMARKS®
CLI® (Campbell Leadership Index®)
COMPASS (COMPASS: The Managerial Practices Survey)
ESP (Executive Success Profile)
EXEC (Survey of Executive Leadership)
LBAII™ (Leader Behavior Analysis II™)
LBQ (The Visionary Leader: Leader Behavior Questionnaire)
LEA (Leadership Effectiveness Analysis)
LEADERSHIP SKILLS (Acumen® Leadership Skills)
L/I (Leadership/Impact™)
LPI (Leadership Practices Inventory)
LSI® (Life Styles Inventory®)
MANAGER VIEW/360™
MATRIX: The Influence Behavior Questionnaire
MEPS (Management Effectiveness Profile System)
MLQ (Multifactor Leadership Questionnaire)
PROFILOR (The PROFILOR®)
PROSPECTOR™
SLP (Survey of Leadership Practices)
SMP (The Survey of Management Practices)
SYMLOG® (System for the Multiple-Level Observation of Groups)
TWI (Types of Work Index)
VOICES®
WORK*STYLES* (Acumen® Leadership Work*Styles*™)

BENCHMARKS®

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Center for Creative Leadership

Copyright Dates: 1988-1994

Statement of Purpose

BENCHMARKS is an instrument for assessing skills, perspectives, and values that a manager can learn and develop. The instrument has unique aspects: It was developed from studying how managers develop rather than what they do, and it allows for a separate assessment of flaws and the ability to handle different types of assignments (McCauley, Lombardo, & Usher, 1989).

Target Audience

BENCHMARKS is based on the experiences of executives and has been administered primarily to middle- and upper-level managers.

Feedback Scales

There are 22 scales broken into 2 major sections: Managerial Skills and Perspectives (16 scales, 106 items) and Potential Flaws (6 scales, 26 items). Major sections of scales and sample items include:

MANAGERIAL SKILLS AND PERSPECTIVES

Resourcefulness (17 items)
Can think strategically, engage in flexible problem-solving behavior, and work effectively with higher management. Sample item: Makes good decisions under pressure with incomplete information.

Doing Whatever It Takes (14 items)
Has perseverance and focus in the face of obstacles. Sample item: Faces difficult situations with guts and tenacity.

Quick Study (4 items)
Quickly masters new technical and business knowledge. Sample item: Quickly masters new technical knowledge necessary to do the job.

Decisiveness (4 items)
Prefers quick and approximate actions to slow and precise ones in many management situations. Sample item: Displays a real bias for action, calculated risks, and quick decisions.

Leading Employees (13 items)
Delegates to direct reports effectively, broadens their opportunities, and acts with fairness toward them. Sample item: Uses his or her knowledge base to broaden the range of problem-solving options for direct reports to take.

Setting a Developmental Climate (5 items)
Provides a challenging climate to encourage direct reports' development. Sample item: Is willing to pitch in and lead employees by example.

Confronting Problem Employees (4 items)
Acts decisively and with fairness when dealing with problem employees. Sample item: Acts decisively when faced with tough decisions such as laying off workers, even though it hurts him or her personally.

Work Team Orientation (4 items)
Accomplishes tasks through managing others. Sample item: Clearly believes that the best way to accomplish a managerial job is through others.

Hiring Talented Staff (3 items)
Hires talented people for his or her team. Sample item: Recruits good people.

Building and Mending Relationships (11 items)
Knows how to build and maintain working relationships with co-workers and external parties. Sample item: Uses good timing and common sense in negotiating; makes his or her points when the time is ripe and does it diplomatically.

Compassion and Sensitivity (4 items)
Shows genuine interest in others and sensitivity to direct reports' needs. Sample item: Shows interest in the needs, hopes, and dreams of other people.

Straightforwardness and Composure (6 items)
Is honorable and steadfast. Sample item: [Does not] tell people what they want to hear.

Balance Between Personal Life and Work (4 items)
Balances work priorities with personal life so that neither is neglected. Sample item: Acts as if there is more to life than just having a career.

Self-awareness (4 items)
Has an accurate picture of strengths and weaknesses and is willing to improve. Sample item: Sorts out his or her strengths and weaknesses fairly accurately (i.e., knows himself or herself).

Putting People at Ease (4 items)
Displays warmth and a good sense of humor. Sample item: Has personal warmth.

Acting with Flexibility (5 items)
Can behave in ways that are often seen as opposites. Sample item: Is tough and at the same time compassionate.

POTENTIAL FLAWS

Problems with Interpersonal Relationships (8 items)
Has difficulties in developing comfortable working relationships with others. Sample item: Thinks more about getting promoted than the job he or she is in now.

Difficulty in Molding a Staff (4 items)
Has difficulties in selecting and building a team. Sample item: Does not select staff wisely.

Difficulty in Making Strategic Transitions (4 items)
Has difficulties in moving from the technical/tactical level to the general/strategic level. Sample item: Cannot handle a job requiring the formulation of complex organizational strategies.

Lack of Follow-through (4 items)
Has difficulties in following up on promises, really completing a job, and attention to detail. Sample item: Does not follow up on promises; lets people dangle.

Overdependence (4 items)
Has an overreliance on a boss, powerful advocate, or one's own natural talent. Sample item: Has chosen to stay with the same boss too long.

Strategic Differences with Management (2 items)
Disagrees with higher management about business strategy. Sample item: Has difficulty handling a conflict with a bad boss or one he or she disagreed with.

Response Scales

There are 4 different response scales in BENCHMARKS, 1 for each major section of the instrument.

SECTION 1

Participants and their raters respond to the Managerial Skills and Perspectives items by rating the extent to which the individual displays each characteristic or behavior. The ratings are made on a 5-point scale:

5 = To a very great extent
4 = To a great extent
3 = To some extent
2 = To a little extent
1 = Not at all

SECTION 2

Individuals are rated according to the extent to which characteristics and behaviors that can lead to derailment, demotion, plateauing, or termination are displayed. The direction of the 5-point scale in Section 2 is negative (i.e., higher scores are negative) and is scored as follows:

5 = Strongly agree
4 = Tend to agree
3 = Hard to decide
2 = Tend to disagree
1 = Strongly disagree

SECTION 3

Individuals respond to how effectively the ratee would handle 16 job assignments. The following rating scale is used:

5 = Among the best
4 = Better than most
3 = Adequately
2 = Less well than most
1 = Among the worst

SECTION 4

Section 4 is composed of the 16 management skills and perspectives rated in Section 1, from which 8 are selected as the most important for success in the manager's organization.

INSTRUMENT DEVELOPMENT

Origin of Items: Research

BENCHMARKS is based on Center for Creative Leadership research that explored the type of experiences that help managers to develop (McCall & Lombardo, 1983; McCall, Lombardo, & Morrison, 1988). The data used to construct items in Sections 1 and 3 were collected through interviews and surveys from over 400 Fortune 500 executives. Executives were asked to describe the key events in their careers and to specify what lessons they learned from these experiences. Content analysis of the interviews and open-ended questionnaire responses revealed 16 categories of critical developmental events (e.g., starting something from scratch, turning around an organization, having a role model) and 34 categories of lessons learned from these events (e.g., how to direct and motivate direct reports, how to cope with situations beyond your control; see Lindsey, Homes, & McCall, 1987).

In addition to this work, 19 top executives at 3 corporations provided descriptions of 2 people they knew well—1 who had succeeded and 1 who had derailed. Ten reasons for derailment were derived from these data, which provide the foundations for Section 2 items.

Development of Feedback Scales

The scales were constructed from data on 336 managers who were rated by their immediate bosses. The managers represented 8 corporations (7 Fortune 500 industrial companies and 1 Fortune 500 service company); 95% of the sample were male, 27% were executives, and 72% were middle managers. The average of years in management was 11. The following steps were used to create scales in each section: (1) items with adequate standard deviations were factor-analyzed, (2) scales were constructed from each factor by averaging responses to items that loaded above .40 on the factor and did not load higher on any other factor, (3) scales were further refined by examining item-scale and item-other scale correlations, and (4) the refined scales were examined to see if scale internal consistencies (Cronbach's alpha) were adequate.

Reliability

Test-retest

Test-retest reliabilities of the scales were calculated for self-ratings and ratings from others. For the retest of self-ratings, data were collected from 75 managers representing numerous organizations 4 to 6 weeks following initial testing. For test-retest reliability estimates of ratings by others, data for 33 managers were collected. Both samples were predominantly male, middle-level to executive managers.

Section 1 test-retest reliabilities for self-ratings ranged from .62 (Work Team Orientation) to .87 (Doing Whatever It Takes). For ratings by others, the range was .71 (Being a Quick Study) to .95 (Leading Employees). Section 2 test-retest reliabilities for self-ratings ranged from .47 (Difficulty in Making Strategic Transitions) to .63 (Strategic Differences with Management). Test-retest reliabilities for ratings by others ranged from .49 (Strategic Differences with Management) to .84 (Lack of Follow-through).

Internal consistency

For a sample of 336 managers, alphas for the Section 1 scales ranged from .75 (Decisiveness) to .97 (Hiring Talented Staff).

Alphas for the scales in Section 2 ranged from .70 (Overdependence) to .92 (Problems with Interpersonal Relationships).

Interrater

The sample for the interrater reliability analysis consisted of 92 managers representing diverse corporations. The average interrater reliability for Section 1 scales was .58 (range .32 to .70). The average interrater reliability of Section 2 scales was .43 (range .24 to .68).

Additionally, Fleenor, McCauley, and Brutus (1996) calculated interrater reliabilities (intraclass correlations) of the Section 1 scales using a sample of 500 managers, each of whom had received ratings from 3 direct reports. These reliabilities ranged from .47 to .70, with a mean of .59.

Validity

The promotability of 336 BENCHMARKS participants was assessed on a 6-point scale by their bosses. These promotability ratings were correlated with the BENCHMARKS scale scores to examine the concurrent validity of the scales. All but 1 of the Managerial Skills and Perspectives scales (Balance Between Personal Life and Work) were significantly and positively correlated with promotability. Furthermore, Resourcefulness and Doing Whatever It Takes were most strongly related to promotability, whereas Putting People at Ease, Compassion and Sensitivity, and Decisiveness were the weakest.

The Potential Flaws scales were significantly and negatively correlated with promotability with the exception of Strategic Differences with Management. Together, the Managerial Skills and Perspectives scales and the Potential Flaws scales accounted for 43% of the variance in assessments of promotability by bosses.

Section 3 items (how effectively the manager would handle 16 assignments) were significantly correlated with promotability. Unchallenging Job, Foreign Country, and Lateral Move–Unfamiliar Business were least related to promotability. Together, the assignments explained 46% of the variance in promotability.

Construct validity was examined by testing hypotheses about group differences on scale scores. The different groups included managers in "clannish" (*N*=43) and "market-driven" (*N*=59) organizations. All but 1 of the 10 expected differences between the 2 groups were as predicted. "Successful managers in market-driven organizations scored significantly higher than their counterparts in clannish organizations on Decisiveness, Hiring Talented Staff, and Difficulty in Making Transitions. On the other hand, promotable managers in clannish organizations scored higher than those in market-driven organizations on Straightforwardness and Composure, Building and Mending Relationships, and Work Team Orientation" (McCauley, Lombardo, & Usher, 1989, p. 19).

A predictive validity study was carried out using promotion data for 253 managers representing 6 organizations. The promotion data were collected 24 to 30 months after the initial BENCHMARKS administration. Earlier results were correlated with managers' current status (demoted or terminated, experienced no movement, or promoted). The findings showed support for the predictive validity of BENCHMARKS. High scores on all but 2 scales (Work Team Orientation and Balance Between Personal Life and Work) in Section 1 were significantly and positively correlated with promotion. Section 2 scales were all appropriately negatively correlated with promotion. Difficulty in Molding a Staff, Difficulty in Making Strategic Transitions, Lack of Follow-through, and Overdependence showed the strongest relationships.

Correlations of Section 3 items with managers' organizational movement showed support for the developmental assignments, especially Turnaround without Authority, Staff-to-Line Switch, One-level Promotion, Leap in Responsibility, Installing New System with Resistance, Major Problem Task Force, Turnaround with Authority, Start from Scratch, Promoted–Unfamiliar Business, Line-to-Staff Switch, and Two-level Promotion. Unchallenging Job and Demotion were both negatively correlated with promotion.

Other Research

As reported by Dalton, Lombardo, McCauley, Moxley, and Wachholz (1996), scale score differences between males and females have been examined. Peers were found to have rated middle-level female managers more favorable than males on Doing Whatever It Takes, Leading Employees, Setting a Developmental Climate, Confronting Problem Employees, Compassion and Sensitivity, Self-awareness, and Acting with Flexibility. Direct reports rated middle-level female managers higher than males on all of the Section 1 scales *except* Being a Quick Study, Decisiveness, Work Team Orientation, Straightforwardness and Composure, and Balance Between Personal Life and Work. Direct reports rated male middle managers higher only on Balance Between Personal Life and Work.

Peers rated upper-level female managers higher than males on Doing Whatever It Takes, Compassion and Sensitivity, and Acting with Flexibility. Male upper-level managers were rated higher by peers on Balance Between Personal Life and Work. Direct reports rated upper-level female managers higher than males on Compassion and Sensitivity and Self-awareness.

Scale score differences between African-American and white managers also have been examined. Direct reports rated African-American managers significantly higher on 12 of the 16 BENCHMARKS scales, and peers rated them higher on 9 of the scales. All raters gave African-American managers higher ratings on Work Team Orientation. Bosses and peers rated white managers significantly higher on Being a Quick Study and on Decisiveness.

The differences between African-American and white managers on the BENCHMARKS scales are similar to those reported by Dalton et al. (1996) for female and male managers. It appears that both African-American and women managers must be more effective than their white male counterparts to be promoted into leadership positions. They appear to be particularly more effective in areas that require a high level of interpersonal skills, such as Leading Employees, Setting a Developmental Climate, and Compassion and Sensitivity.

A Caution Statement on Misinterpretations

BENCHMARKS is designed for developmental purposes and is not designed for use in selection, compensation, or performance appraisal purposes. Any feedback collected will be shared with the individual in a one-on-one feedback session. Individual participants own their feedback data and must be given exclusive possession of all copies of their feedback reports unless otherwise requested or agreed to by the individual. Confidentiality of all individual feedback data must be ensured and safeguarded. The anonymity of individual respondents must be maintained except where specifically noted and agreed to (e.g., Immediate Boss data). We will release no data more than 1 year old. To be useful, data should be current.

International Use

Translations

National versions include: Anglicized English, Dutch, French, French Canadian, German, and Norwegian. International versions for raters are available (feedback is in English) in: Dutch, French, French Canadian, German, Italian, Japanese, Mandarian Chinese (Traditional and Simplified), Mexican Spanish, and Norwegian.

International norms

Australia, Belgium, Canada, European Union, France, Germany, Italy, Netherlands, Saudi Arabia, Sweden, United Kingdom, and Venezuela.

Internationally tested for reliability/validity

French, French Canadian, and German.

CHARACTERISTICS OF FEEDBACK

Type of Feedback Display: PLOTS

See sample display on next page.

Breakout of Rater Responses

Throughout the feedback report, self-report data is compared to both combined ratings from all observers and separately to ratings by supervisors, peers, and direct reports.

Feedback Delivery Strategies

Comparison to norms
Throughout the feedback, percentiles are used to compare scores to 1 of 2 norm groups. The managerial level of the participant determines whether he or she will be compared to upper-level managers or middle-level managers. The norms are based on 2,972 upper managers and 1,828 middle managers who took BENCHMARKS in 1994. There are separate norms for public-sector and private-sector managers. Of the private sector middle-level managers, 63% are male and their mean age is 40. Of the public-sector middle-level managers, 50% are female and their mean age is 44. The private-sector upper managers in the norms base are predominantly male (76%) and have a mean age of 43. The public-sector upper managers are 57% male, with an average age of 46.

Highlighting largest self/rater discrepancies
Highlighting rater discrepancies is a listing of 15 items with the largest differences between self and all-observer scores. Although the list and the graphs provide participants with a quick overview, they do not indicate whether the differences are statistically significant.

Item-level feedback
Feedback on all items is provided.

Highlighting high/low items and scales
A listing of the 10 highest rated items and the 10 lowest rated items is provided in the feedback. The rankings are based on scores by the participants' superiors, peers, and direct reports combined.

Importance to job or success
The skills and perspectives that were rated important for success by the manager, the manager's boss, and peers and direct reports combined are presented in the feedback.

9. Hiring Talented Staff

Hires talented people for his/her team.

	Your Score	Low	Mid-Range		High
Self	4.33			S	
All Observers	3.70		O		
Boss/Superiors	4.67				B
Peers	4.11			P	
Direct Reports	3.27		R		

Most Important For Success

All Obsvr	Boss	Self
6		✓

	Self	Boss/Sup	Peer	DRpt
66. Recruits good people.	4.00	[5.00]	[4.33]	3.00
67. Hires people who are not afraid of responsibility or risks.	4.00	[5.00]	4.00	[3.80]
68. Surrounds him/herself with the best people.	5.00	4.00	4.00	3.00

Higher Ratings Preferred

Key:

[ ] = 15 highest rated items (plus ties) for each rater group

___ = 15 lowest rated items (plus ties) for each rater group

* = Gap of at least 3 points between raters from one category.

SUPPORT AND DEVELOPMENTAL MATERIALS

Support for Participant

Development and planning guide
There is a guide that accompanies the instrument, a 50-page booklet that offers managers information about how they can enhance their own development. It contains: (1) a detailed description of the 16 components of Managerial Skills and Perspectives, (2) a comprehensive understanding of the problems that can stall a career, and (3) an extensive look at 6 challenging job assignments to round out a career.

Workshop
The Center for Creative Leadership offers a course, the Leadership Development Program (LDP)®, which allows managers to examine further their strengths and weaknesses using BENCHMARKS feedback. Participants can use their results as a basis for determining a course of action for managing their careers.

Summary worksheets
Worksheets are provided in the development and planning guide.

Support for Trainer

Trainers' guide/manual
BENCHMARKS: A Manual and Trainer's Guide (1996) is given to participants of the certification workshop. It is a guide on the development and uses of the instrument. This is primarily reference material on the instrument, not a formal training manual.

Workshop
BENCHMARKS offers a certification workshop. This program is available for human resource professionals who wish to administer and give feedback on the instrument.

Supplemental norms/group profile
Norms for various industry groups and several countries are available. A group profile is also available.

Certification Requirement

To give feedback on BENCHMARKS, the Center for Creative Leadership requires that the feedback-giver attend a 2-day certification workshop. Following certification, the trainer may order sets of material from the Center.

Scoring Process

The self and observer forms are on NCS optical-scanner sheets. The Center for Creative Leadership scores and prepares feedback for participants or, alternatively, a scoring program can be licensed. Turnaround time, once all materials are received by the Center, is 1 week.

Remote scoring is available for organizations that want to score their own BENCHMARKS questionnaires. This requires special computer equipment but can save the organization time and money in processing the results.

BENCHMARKS can also be administered over the World Wide Web.

OTHER CONSIDERATIONS

Cost

Quantity	Price per Set	Price with Discount*	Remote Scoring	On-line
1-50	$245	$215	$180	$275
51-200	$215	$185	$150	$245
201+	$185	$155	$120	$215

* The Center offers a $30 discount per set if your organization handles the administration and collection of BENCHMARKS.

The set includes 12 questionnaires (1 self, 11 observers), computer-scoring, and the development guide.

Length of Instrument

BENCHMARKS has a total of 164 items (106 in Section 1, 26 in Section 2, 16 in Section 3, and 16 in Section 4). It takes approximately 30 minutes to complete the instrument.

BENCHMARKS Bibliography

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CAMPBELL LEADERSHIP INDEX® (CLI®)

Vendor: NCS Assessments
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Copyright Dates: 1988, 1990, 1991

Statement of Purpose

The Campbell Leadership Index (CLI) is an adjective checklist designed to assess leadership characteristics, such as Dynamic, Empowering, Productive, and Trusting. Respondents indicate how descriptive each adjective is of them. From 3 to 15 observers also rate the respondent on these same characteristics (Campbell, 1991).

Target Audience

The CLI is designed to assist students and adults who are seeking feedback on their leadership characteristics.

Feedback Scales

The CLI contains 100 adjectives (both positive and negative) that are often associated with leadership. The adjectives form 22 scales that are grouped into 5 major orientations: Leadership, Energy, Affability, Dependability, and Resilience. An Overall Index score is also reported for self and observers. The orientations, their scales, and sample items follow.

LEADERSHIP ORIENTATION

Ambitious (4 items)
Is determined to make progress, likes to compete. Sample item: Highly motivated; determined to make progress.

Daring (4 items)
Is risk-oriented, willing to try new experiences. Sample item: Willing to try new experiences.

Dynamic (3 items)
Takes charge, inspires others, is seen as a leader. Sample item: Inspires others through energy and enthusiasm.

Enterprising (4 items)
Works well with the complexities of change. Sample item: Clever in developing and carrying out new plans.

Experienced (5 items)
Has a varied background, is well informed. Sample item: Has seen and done a great deal.

Farsighted (3 items)
Looks ahead, plans, is a visionary. Sample item: Shows great vision in imagining the future.

Original (4 items)
Sees the world differently, has many new ideas. Sample item: Thinks and acts in fresh, unusual ways.

Persuasive (3 items)
Is articulate and persuasive in influencing others. Sample item: Can influence others toward a plan of action.

ENERGY ORIENTATION (6 items)

Is physically fit, energetic, athletic. Sample item: In motion, on the go.

AFFABILITY ORIENTATION

Affectionate (3 items)
Acts close, warm, and nurturing. Sample item: Acts close, warm, and caring toward others.

Considerate (7 items)
Is thoughtful, willing to work with others. Sample item: Thoughtful of the needs and feelings of others.

Empowering (3 items)
Motivates and helps others to achieve. Sample item: Enables others to achieve more than they thought possible.

Entertaining (5 items)
Is outgoing and amusing, enjoys people. Sample item: Good at amusing others.

Friendly (5 items)
Is pleasant to be around, smiles easily. Sample item: Warm and pleasant, nice to be around.

DEPENDABILITY ORIENTATION

Credible (6 items)
Is open and honest, inspires trust. Sample item: Worthy of trust, believable.

Organized (5 items)
Sets up systems and follows through. Sample item: Plans ahead and then follows through.

Productive (6 items)
Uses time and resources well. Sample item: Gets a lot done.

Thrifty (3 items)
Uses and manages money wisely. Sample item: Manages money and other resources carefully.

RESILIENCE ORIENTATION

Calm (3 items)
Has an unhurried, unruffled manner. Sample item: Unhurried, unruffled.

Flexible (4 items)
Easily adjusts to changes. Sample item: Handles change and ambiguity well.

Optimistic (6 items)
Is positive, handles personal challenges well. Sample item: Sees the best in people and situations.

Trusting (4 items)
Trusts and believes in others. Sample item: Believes in the goodness of others.

Procedural Checks

The CLI contains procedural checks that provide a summary of the participants' and their observers' responses. This section contains 4 tables: Response Percentage Checks, Consistency Check, Omits Check, and How Well Known by Observer. Looking over these checks can help identify patterns and inconsistencies in responses as well as explain self-observer differences.

Response Scale

Respondents indicate how descriptive each adjective is of the focal individual using the following response scale.

A = Always, Very Descriptive
U = Usually, Descriptive
So = Sometimes, Somewhat Descriptive
O = Occasionally, Somewhat Undescriptive
Se = Seldom, Undescriptive
N = Never, Very Undescriptive

INSTRUMENT DEVELOPMENT

Origin of Items: Theory/Experience

The CLI is based on a list of adjectives that reflect various dimensions of leadership. The adjective list was derived from theory and research about leadership and the author's observations of the characteristics of effective leaders. Campbell (1991) describes leadership in organizations as the maintenance of 7 crucial tasks: (1) Vision—clarifying overall goals, (2) Management—focusing and managing resources, (3) Empowerment—selecting and developing subordinates, (4) Politics—forging coalitions, (5) Feedback—listening to relevant groups, (6) Entrepreneurship—finding opportunities and desirable change, and (7) Personal Style—leading by example.

The original pool of 300 adjectives was refined to eliminate redundancies and ambiguities. The current list of 100 adjectives was selected because of their high level of clarity. It is the author's belief that high ratings on these characteristics are an indication that the focal individual is an effective leader.

Development of Feedback Scales

The items that comprise each of the scales were selected because of a high level of item intercorrelation and their face validity. The scales were developed using both correlational analyses and the experience of the instrument developer. Positive and negative items were used in some scales and their item weights were modified accordingly.

A factor analysis of self-ratings from 255 managers was performed as a test of the relationship among the scales and the orientations. A 5-factor solution was produced from the varimax rotation of the 22 scales, which supported the grouping of the scales within the orientations.

Reliability

Test-retest

Two test-retest reliability studies were conducted with the CLI, using self- and observer ratings for 30 women from a business forum and 71 fraternity leaders.

The business forum retest was completed 1 month after the initial administration. Test-retest reliabilities for self-ratings ranged from .72 to .96 for the 22 scales, and from .81 to .91 for the 5 orientations and the Overall Index. The test-retest reliabilities for the observer ratings (*N*=142) ranged from .74 to .94 for the 22 scales, and from .85 to .93 for the 5 orientations and the Overall Index.

The test-retest study with fraternity leaders was administered over a 3-week period. Correlations for self-ratings (*N*=71) ranged from .65 to .89 for the 22 scales, and from .86 to .92 for the orientations and Overall Index. The correlations for observer ratings (*N*=150) ranged from .68 to .92 for the 22 scales, and from .84 to .94 for the orientations and Overall Index.

Internal consistency

Internal consistency of the CLI was established by computing item-to-scale correlations and Cronbach's alpha coefficients. The overall median item-scale correlation for CLI orientations was .85 and the median item-scale correlation for CLI scales was .72. Cronbach's alpha coefficients (*N*=236) for the scales ranged from .56 (Affectionate) to .87 (Calm), with a median of .72.

Interrater

Intraclass correlations (from the CLI results of 1,313 observers of 311 individuals) for the 5 orientations and the Overall Index ranged from .68 (Resilience) to .82 (Energy), with a median of .68.

Validity

To date, 4 major studies of the validity of the CLI have been carried out. In the first study, self- and observer ratings on the CLI were collected for 55 managers in a large research and development laboratory. Several months later, 3 senior executives rated the promotability of each manager on a 5-point scale. These executives had not been included as CLI observers and were unaware of the managers' CLI scores. Two multiple regressions were run: the first used self-ratings and 5 CLI orientations to predict mean promotability ratings, and the second used observer ratings as predictors. The results from the self-ratings were significant: the multiple correlation between the CLI self-ratings and the promotability ratings was .42. However, the observer ratings were more predictive, with a multiple correlation of .64.

The second study of CLI validity was carried out in a manufacturing company: 3 samples of managers were surveyed using the CLI: excellence-award winners (*N*=6, 29 observers), high-performers (*N*=29, 120 observers), and key area managers (*N*=10, 39 observers). Once again the patterns of scores differed, with fewer differences among the self-ratings than among observer ratings. Both the excellence-award winners and high-performers rated themselves modestly, whereas observers rated them highly. The observer ratings for both the excellence-award winners and high-performers were higher than the key area managers on most scales, especially on the Leadership and Dependability orientations. The overall pattern was overwhelmingly in the direction of the award winners scoring highest, with high-performers second and key area managers lowest. In this company, "key area manager" was a euphemism for "unpromotable."

The third study was a comparison among 3 categories of military personnel: highly regarded officers (*N*=74, 326 observers), military instructional staff (*N*=34, 168 observers), and military officer candidates (*N*=90, 373 observers). The differences among the self-ratings of the samples were much smaller than their observer scores. The differences between the observers of the 3 samples were large and ranked according to the predicted sequence, with highly regarded officers ranked first, instructional staff ranked second, and officer candidates rated lowest. The largest discrepancy between the highly regarded officers and the officer candidates observer ratings were on the Dependability and Leadership orientations.

The fourth study examined the relationship between the CLI scales and specific leadership skills for a sample of high-level executives (*N*=131, 577 observers). The executives were employed by a wide range of business, military, and nonprofit organizations. The results showed that observer ratings on CLI scales predicted leadership skills. For example, scores on Dynamic predicted presentation skills (*r*=.53); scores on Productive predicted ability to drive the execution of tasks (*r*=.45); scores on Friendly predicted skills in empowering others (*r*=.47), fostering open dialogue (*r*=.47), and building relationships within the organization (*r*=.48); and scores on Persuasive predicted skill at influencing and negotiating (*r*=.45).

Other Research

Males from an advanced business school course (*N*=154, 486 observers) were compared with women from a business forum (*N*=35, 142 observers). Very little discrepancy in their observer ratings on the Leadership, Dependability, and Resilience orientations was found. Differences appeared on the Energy orientation, where men were rated higher, and on the Affability orientation, where women were rated higher. Differences in the scores of men and women on the Dependability orientation showed that women were seen as more credible and males were seen as thriftier. Otherwise, the differences between the sexes were small and infrequent.

A Caution Statement on Misinterpretations

Problematic uses of the CLI might include: using the survey results for information about things it was not designed to measure (for example, intelligence); overreliance on the CLI, ignoring other pieces of data; paying too much attention to just 1 piece of data on the CLI and ignoring other scores and the context in which the data were collected; and failing to properly explain and debrief CLI results and not providing resources to help people understand their results and receive answers to their questions. An adverse, unintended consequence of using the CLI might occur if an individual who received critical feedback obsesses over which of the raters gave the low ratings or seeks to punish someone they perceive as being the likely "low" rater.

International Use

Translations
Not currently available.

CHARACTERISTICS OF FEEDBACK

Type of Feedback Display: PLOTS

Participants receive a 21-page feedback report displaying both self- and observer ratings on the orientations, scales, and items. Graphs are used throughout the feedback to display these data. All the ratings are shown as standard scores, where a score of 60 or higher is very high and a score of 40 or lower is very low.

Breakout of Rater Responses

All raters are presently combined into 1 observer group. A revised version of the CLI feedback report that provides separate responses for each rater group is under development.

Feedback Delivery Strategies

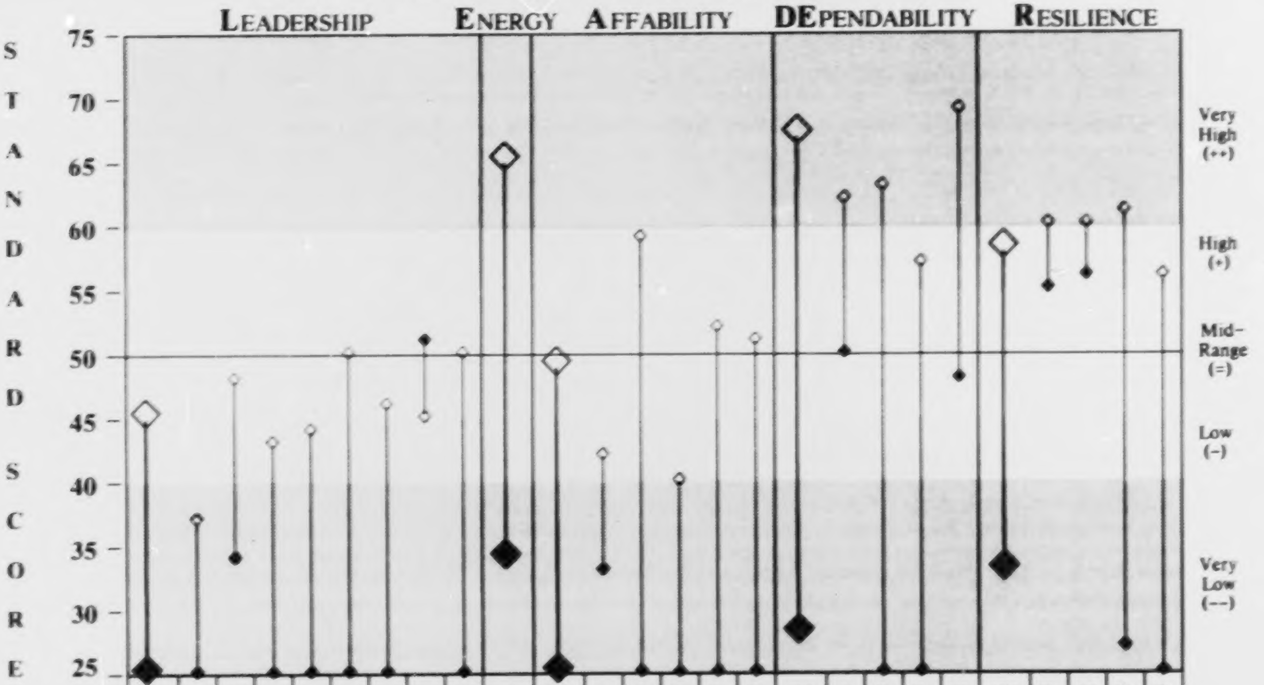
Comparison to norms
All the ratings are shown as standard scores where the mean score is 50, the standard deviation is 10, and the range is approximately 25 to 75.

The norms are based on 30 samples of people (*N*=1,767; 7,414 observers) who participated in the development of the instrument. The samples were very diverse, including managers and leaders in business, education, college, government, public service, and religious sectors.

CWO® CAMPBELL LEADERSHIP INDEX® INDIVIDUAL PROFILE

NAME: CASE STUDY D NUMBER OF OBSERVERS: 4 DATE SCORED: 01/23/91

(◆ =Self; ◇ =Observer Average; * =Self and Observer Values are Equal)



	LE	Am	Da	Dv	Ep	Ex	Fa	Or	Pe	EN	AF	Ae	Co	Em	Et	Fr	DE	Cr	Og	Pr	Th	RE	Ca	Fl	Op	Tr
Self (◆)	10	5	34	6	8	13	25	51	14	35	11	33	23	17	19	10	29	50	16	15	48	34	55	56	27	16
Obs. (◇)	46	37	48	43	44	50	46	45	50	66	50	42	59	40	52	51	68	62	63	57	69	59	60	60	61	56

Highlighting largest self/rater discrepancies
Up to 5 scale scores are printed where large discrepancies between self and observers occur. Although the list provides participants with a quick overview, it is not indicated whether or not the differences are statistically significant. In the upcoming revision of the CLI feedback report, discrepancies will be highlighted in a quadrant analysis of self/rater scores.

Item-level feedback
Self and observer scores are provided for each item on the CLI.

Highlighting high/low items and scales
Up to 5 of the highest and lowest observer scores are displayed in the feedback. The scores and corresponding scales are presented along with the actual numeric differences between observer and self scores.

The upcoming revision of the CLI feedback report will include an extensive narrative report explaining strengths and development needs, linking CLI scales to specific leadership skills, and offering specific developmental suggestions.

SUPPORT AND DEVELOPMENTAL MATERIALS

Support for Participant

Development and planning guide
A development planning guide contains background information on the origins of the instrument, definitions of the items and scales, a detailed guide for interpreting the results, and worksheets to help participants develop an action plan.

Support for Trainer

Trainers' guide/manual
A manual (Campbell, 1991) serves as an administrative and interpretive guide; it also describes the development of the CLI and provides information about research conducted with the instrument. In addition, the manual contains numerous graphs displaying CLI results from various samples. Overall, it is very detailed and informative.

Workshop
The CLI is part of the Campbell Development Surveys™ (CDS). The CDS has 4 components: the Campbell Organizational Survey™ (COS™), the Campbell Interest and Skill Survey™ (CISS®), the Campbell-Hallam Team Development Survey™ (TDS™), and the CLI. Each instrument can be used alone or as part of the group.

NCS Assessments offers a 1-day workshop on the entire battery (CDS).

Supplemental norms/group profile

Norms from diverse samples are provided by Campbell (1991). Group profiles are available at $36 per group.

Certification Requirement

To purchase the CLI, users must complete a qualification form indicating that they have: (1) earned a graduate degree in applied psychology or a related field and completed a general tests and measurements course taken at the graduate level or (2) have equivalent credentials.

Scoring Process

NCS scores the CLI. The questionnaire has a detachable answer sheet that is optically scanned. NCS scores and mails the results to the participant approximately 1 business week after all forms are received.

OTHER CONSIDERATIONS

Cost

The price for a standard set (which includes 1 self and 5 observer forms, a copy of the development planning guide, and scoring) varies with the number of sets purchased.

Quantity	Price per Set
1-49	$165
50-249	$150
250+	$135

Extra observer forms are available for $7 apiece. The manual (Campbell, 1991) is $51.

Length of Instrument

The CLI consists of 100 items. The instrument can be completed in approximately 20 to 30 minutes.

CLI Bibliography

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COMPASS: THE MANAGERIAL PRACTICES SURVEY

Vendor: Manus
A Division of Right Management Consulting
100 Prospect Street
South Tower
Stamford, CT 06901
(800) 445-0942
Fax (203) 326-3890

Author: Gary Yukl, Ph.D.
State University of New York at Albany
Albany, NY
(518) 442-4932

Copyright Dates: 1984, 1988, 1990, 1995

Statement of Purpose

COMPASS: The Managerial Practices Survey (COMPASS) will provide you with information about your current behavior on the job as a leader and as a manager. It can help you identify strengths and expand your repertoire of effective practices in both of these critical roles (Manus, 1995).

Target Audience

COMPASS was designed to apply to managers at every organizational level and has been used in business, public, and military organizations.

Feedback Scales

Informing (4 items)
Disseminating relevant information about decisions, plans, and activities to people who need the information to do their work. Sample item: Passes on to you relevant information obtained in conversations with other people.

Clarifying (6 items)
Assigning work, providing direction in how to do the work, and communicating a clear understanding of job responsibilities, task objectives, priorities, deadlines, and performance expectations. Sample item: Clearly explains what results are expected for a task or project.

Monitoring (6 items)
Gathering information about work activities and external conditions affecting the work, checking on the progress and quality of the work, and evaluating the performance of individuals and the effectiveness of the organizational unit. Sample item: Follows up after making a request to verify that it was done.

Planning (6 items)
Determining long-term objectives and strategies; allocating resources according to priorities; determining how to use personnel and resources efficiently to accomplish a task or project; and determining how to improve coordination, productivity, and effectiveness. Sample item: Plans what resources are needed to carry out a task or project.

Problem-solving (6 items)
Identifying work-related problems, analyzing problems in a systematic but timely manner to determine causes and find solutions, and acting decisively to implement solutions and resolve crises. Sample item: Takes the initiative in identifying work-related problems that need to be solved.

Consulting (5 items)
Checking with people before making changes that affect them, encouraging participation in decision making, and allowing others to influence decisions. Sample item: Consults with you to get your reactions and suggestions before making major changes that will affect you.

Delegating (3 items)*
Allowing others to have substantial responsibility and discretion in carrying out work activities and giving them authority to make important decisions. Sample item: Encourages you to determine for yourself the best way to carry out an assignment or accomplish an objective.

Inspiring (6 items)
Using influence techniques that appeal to logic, values, or emotion to generate enthusiasm for the work; commitment to task objectives; and compliance with requests for cooperation, resources, or assistance; also, setting an example of proper behavior. Sample item: Proposes challenging but realistic objectives.

Recognizing (6 items)
Providing praise and recognition for effective performance, significant achievements, and special contributions. Sample item: Praises improvements in performance.

Rewarding (3 items)*
Providing tangible rewards such as a pay increase or promotion for effective performance and demonstrated competence. Sample item: Recommends or approves a pay increase or bonus for a person whose performance has been effective.

Supporting (5 items)
Acting friendly and considerate, being patient and helpful, and showing sympathy and support when someone is upset or anxious. Sample item: Is sympathetic and supportive when you are worried or upset about something.

Mentoring (4 items)*
Providing career counseling and doing things to facilitate someone's skill development and career advancement. Sample item: Offers helpful advice on how to advance your career.

Networking (5 items)
Socializing informally; developing contacts with people who are a source of information and support; and maintaining contacts through periodic visits, telephone calls, correspondence, and attendance at meetings and social events. Sample item: Maintains contacts with people in other parts of the organization who can be a useful source of information, resources, and political support.

Teambuilding (5 items)
Facilitating the constructive resolution of conflict and encouraging cooperation, teamwork, and identification with the organizational unit. Sample item: Encourages cooperation and teamwork among people who depend on each other to get work done.

* Only direct reports complete the items on these scales since they involve managerial behavior directed mostly to subordinates rather than peers.

Response Scale

Respondents rate how frequently the manager uses each behavior by the following options:

4 = Usually, to a great extent
3 = Sometimes, to a moderate extent
2 = Seldom, to a small extent
1 = Never, not at all
NA = Not applicable
DK = Don't know

INSTRUMENT DEVELOPMENT

Note: Not all of the psychometric research reported below has used the current version of COMPASS. The authors believe previous versions have been similar enough in item content so that the results can generally apply to the current version.

Origin of Items: Theory/Research

COMPASS was developed over a period of 20 years from theory, research, and practice used to identify and measure categories of behavior important for managerial effectiveness (Yukl, Wall, & Lepsinger, 1990). Using factor analysis, judgmental classification, and theoretical deduction, Yukl (1989) formulated an integrated taxonomy with 11 primary categories. "An effort was made to formulate categories that maintained continuity with earlier taxonomies and with major lines of research on leader behavior, such as research on positive reward behavior, participative leadership, supportive leadership, transformational leadership, and so forth" (p. 128). The scales of COMPASS correspond to the primary categories in the taxonomy.

Development of Feedback Scales

The scales were constructed using data from 5 different samples—3 heterogeneous and 2 homogeneous. The first heterogeneous sample was comprised of 203 MBA students. The initial 70 items produced 10 factors that accounted for 70% of the common variance; 9 of these factors were meaningful. The results from this first study were used to revise the questionnaire, which was then administered to a new sample of 212 students. This time there were 16 factors accounting for 64% of the common variance, with 12 of these factors judged to be meaningful. Of the 9 factors identified in the first study, all but 1 emerged as strong factors in the second study.

The third study used a homogeneous sample consisting of 146 employees in 26 production departments of a paint factory in a large multinational corporation. This study used a shortened version of the questionnaire. It produced 10 factors that accounted for 70% of the common variance, with 9 of these meaningful and similar to factors found in the second study.

The fourth study was conducted on a small sample (*N*=18) of beauty salon managers (82 questionnaires were returned from raters; Yukl & Kanuk, 1979); 10 meaningful factors were produced, again largely similar to results obtained in earlier work.

The fifth study was conducted on a sample of 2,655 subordinates who described 432 managers at different levels in a variety of organizations. Factor analysis of the 80 items yielded 14 orthogonal factors that accounted for 60% of the item variance. The factors corresponded to the 14 scales in the current version of the questionnaire, which uses 70 items from the previous version.

Other approaches were subsequently used to supplement factor analysis in selecting a parsimonious set of scales: using judges to sort behaviors into categories on the basis of common purpose of the behavior, testing categories by using them to code behavior descriptions for diaries and critical incidents, and comparing these behavior categories with those found in the literature on leadership and managerial effectiveness.

Reliability

Test-retest

Test-retest reliability has been examined for COMPASS scales in 3 studies that varied the interval between testings (3, 4, and 6 weeks). In each study, the sample was comprised of evening MBA students who worked during the day. Correlations have generally been high, ranging from .48 for the Networking scale in the 6-week study to .94 for the Supporting scale in the 3-week study.

Internal consistency

Internal consistency was computed separately for managerial behavior descriptions from 3 samples of subordinates. The first sample consisted of 132 subordinates of middle managers in a large medical-health-insurance company. The second consisted of 76 subordinates of middle managers in a large chemical company. The third consisted of 124 subordinates of Air Force maintenance supervisors.

Alpha coefficients for scale scores across these studies are high, ranging from .80 for the Monitoring scale in the second sample to .93 for the Mentoring scale in the first sample.

Interrater

Two alternative indices of interrater agreement were computed for 50 groups of subordinates having at least 4 subordinate raters. The leaders described by the subordinates included 22 middle managers in a medical insurance company, 16 middle managers in a chemical company, 7 middle-level administrators in a municipal housing authority, and 5 managers of real-estate offices. A 1-way analysis of variance was computed for each scale, with significant F-tests for each. These results show that within-group variance (that is, disagreement among subordinates) was smaller than between-group variance (differences between target managers).

The other index used was the intraclass correlation coefficient for group means, showing the extent to which the mean rating by 1 group of raters is similar to the mean rating by another group of raters of the same size. This analysis found moderate levels of interrater agreement, ranging from .55 (Teambuilding and Problem-solving) to .72 (Mentoring and Motivating).

Validity

Significant correlations between subordinate ratings and a criterion of managerial effectiveness were found for 2 scales (Problem-solving and Recognizing/Rewarding) in a sample of 26 managers of insurance salespersons. The criterion was based on ratings made by 4 people who were familiar with the performance of each manager in the sample (reported in Yukl et al., 1990).

Scores on 3 scales (Clarifying, Monitoring, and Networking) were significantly correlated with performance of 24 elementary school principals. A panel of judges used information about school performance to classify principals as outstanding or average (Martinko & Gardner, 1984).

For 24 high school department heads who were rated by teachers in their departments, scores on 4 current scales (Informing, Planning, Mentoring, and Clarifying) were significantly related to a criterion of effectiveness derived from rankings by principals, superintendents, and staff personnel (reported in Yukl et al., 1990).

Other Research

The perceived relevance of the content of COMPASS for managerial effectiveness has been examined in 3 studies (reported in Yukl et al., 1990). In each study, managers and their raters rated the importance of either each item or each scale for effective performance in the job of the manager being described. By comparing results across studies, the content of each scale was seen as at least moderately important, and usually very important, for effective performance. Additionally, Kim and Yukl (1995) reported that subordinate and self-ratings from COMPASS were equally effective at predicting a manager's advancement in the organization.

A Caution Statement on Misinterpretations

1. COMPASS is designed for developmental purposes and is not designed for use in selection, compensation, or performance appraisal purposes.
2. Individual participants own their feedback data and must be given exclusive possession of all copies of their feedback reports. If you do otherwise, participants should be made aware of this.
3. Confidentiality of all individual feedback data must be ensured and safeguarded.
4. The giving of feedback must follow the collection of any data on an individual or organization. Once data have been collected, the sooner the data are presented, the higher the likelihood that the participants will be open to feedback.
5. The anonymity of individual respondents must be maintained except where an individual has clearly and expressly waived this requirement on the respondent questionnaire, or where specifically noted and agreed to.

International Use

Translations
COMPASS has been translated into French, German, Italian, Korean, and Spanish, and has been used in Asia, Australia, Canada, the Caribbean, Europe, and Africa.

International norms
Available for the United Kingdom, Africa, Japan, and other countries/continents upon request.

Internationally tested for validity/reliability
Not currently available.

CHARACTERISTICS OF FEEDBACK

Types of Feedback Display: BAR GRAPH and CIRCUMPLEX

Self and rater data are presented in bar graphs. Importance data are presented using a circumplex.

Breakout of Rater Responses

Frequency scores for the practices are broken down into direct report and colleague categories and compared to self-ratings. Rater categories can also be customized; for example, "team members" or "internal customers." Boss frequency ratings are optional.

Boss ratings of the importance of each practice are compared to self-ratings of importance.

Feedback Delivery Strategies

Comparison to norms
Direct reports and colleagues scores are converted into percentiles for comparison to the norms.

Current norms for COMPASS are based on 1,100 managers at all levels. Norms are updated on a yearly basis. Company, group, and industry norms are also available.

Highlighting largest self/rater discrepancies
Significant discrepancies between managers' self-ratings and the responses of their raters are highlighted by an asterisk (*).

INFORMING

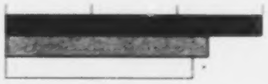
Key

■ □ = *Self*

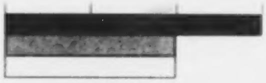
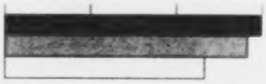
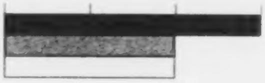
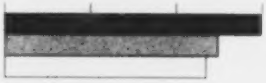
▨ Δ = *Direct Reports*

□ ○ = *Colleagues*

OVERALL FREQUENCY

	NEVER 1 · SELDOM 2 · SOMETIMES 3 · USUALLY 4	PERCENTILE	NOTES
Informing	4.0 = □ 3.3 = Δ 3.2 = ○  * = Significant gap between self-rating and others' ratings	 50th 60th	

BEHAVIOR ITEMS

NEVER 1 · SELDOM 2 · SOMETIMES 3 · USUALLY 4	RESPONSES						NOTES
	1	2	3	4	NA	?	
1. Promptly informs people about a decision that affects their work. 4.0 = □ 3.0 = Δ 3.0 = ○ 		Δ ○	Δ ○	Δ ○	Δ		
2. Passes on relevant information obtained in conversations with other people. 4.0 = □ 3.8 = Δ 3.3 = ○ 		○	Δ ○	Δ ○			
3. Passes on memos, reports, and other written materials that are relevant to people who would otherwise not receive them. 4.0 = □ 3.0 = Δ 3.0 = ○ 		Δ ○	Δ ○	Δ ○			
4. Informs people about relevant aspects of activities and plans. 4.0 = □ 3.5 = Δ 3.3 = ○ 			Δ ○	Δ ○			

Key
Δ = *# of Direct Reports*
○ = *# of Colleagues*

RECOMMENDATIONS

	DO MORE	DO SAME	DO LESS	NOTES
Informing	Δ 1 ⓪	Δ 3 ③	—	

Notes on Informing

Discrepancies are also visually highlighted by the length of the bars in the graphic portion of the feedback.

Item-level feedback
Feedback on COMPASS items is provided.

Highlighting high/low items and scales
Summary pages of importance, frequency, and recommendations are provided for each rater group. These pages highlight the highest to lowest scale scores in order of strengths (Do Same) and areas for development (Do More).

Importance to job or success
Data are provided on how the manager and his or her boss view each category in terms of importance for effective performance, thus helping the manager decide if corrective action may be more important in some areas than in others.

"Do more/do less"
Feedback at the scale level about what to do more of and what to do less of is available.

SUPPORT AND DEVELOPMENTAL MATERIALS

Support for Participant

Development and planning guide
A development guide is available for each of the 14 management practices. Each booklet defines the management practice, identifies the purposes of the practice, provides examples, describes situations in which the practice is particularly important, and offers tips for using the practice.

A planning-guide workbook provides guidance for interpreting and summarizing the feedback. Worksheets are provided for summarizing overall strengths and weaknesses and for selecting key targets for development. The final section assists the manager in planning next steps. It briefly discusses 5 developmental strategies (reading, self-monitoring, coaching, management training, and job assignments), provides a developmental planning worksheet, and suggests strategies for monitoring progress.

Workshop
A 1-day feedback workshop and a half-day workshop to help participants use their feedback results to prepare a plan for professional development are available from Manus. The vendor also certifies other qualified professionals to deliver the workshop.

Post-assessment
Post-assessment studies can be conducted for clients.

Vendor hotline
Manus has a hotline for COMPASS participants.

Summary worksheets
See "Development and planning guide" section above.

Support for Trainer

Trainers' guide/manual
There is a manual (Manus, 1995) that contains a detailed trainer's outline, transparencies, a planning guide, development guides for each scale, and information about the validation research of the instrument.

Workshop
A certification workshop is available through Manus.

Supplemental norms
COMPASS group reports can be generated for groups of managers, large departments, entire organizations, and industries.

Video
The COMPASS workshop includes a videotape model that shows managers how to meet with the people who gave them feedback to clarify the feedback and commit to next steps.

Supplemental materials from the vendor
Manus develops customized competency models outlining which COMPASS practices are most highly correlated with effectiveness in a given company or job.

Certification Requirement

Users must go through a certification process that includes participating in a COMPASS workshop, attending a train-the-trainer session, and being observed delivering a session.

Scoring Process

COMPASS is computer-scored by the vendor. Turnaround time is 2 weeks; however, a rush turnaround is available. The COMPASS software is available for licensing. Electronic data-collection options (diskette, e-mail) are also available.

OTHER CONSIDERATIONS

Cost

COMPASS is sold in sets. Cost varies by number ordered per year.

Quantity	Price per set
1-5	$295
6-25	$275
26-50	$255
51-75	$225
76-150	$200
Over 150	$185

A set is comprised of 1 self-report version of the instrument, 8 copies to be completed by colleagues and direct reports, and an importance questionnaire for the immediate boss to complete. Scoring of the instrument is also included along with a computer-generated feedback report and a manual (Manus, 1995) that includes a planning guide, development guides for each of the 14 management practices, and information about research on and validation of the instrument.

Length of Instrument

COMPASS consists of 70 behavioral items plus 14 managerial practices on which the rater indicates whether the manager should do more, do less, or do the same. The instrument can be completed in 20 to 35 minutes.

Open architecture allows addition of items at client's request. Validated standard supplemental scales include: Coaching, Empowering, Inspirational Leadership, Encouraging Continuous Improvement, Risk-Taking, Credibility, Strategic Thinking, Valuing Diversity, Managing Change, and Customer Focus. Other customized feedback categories and open-ended questions may be added as well.

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EXECUTIVE SUCCESS PROFILE (ESP)

Vendor: Personnel Decisions International
2000 Plaza VII Tower
45 South Seventh Street
Minneapolis, MN 55402-1608
(800) 633-4410

Author: Personnel Decisions International

Copyright Dates: 1987, 1993

Statement of Purpose

The Executive Success Profile (ESP) provides feedback on executive-level competencies as perceived by the people with whom they work. The instrument focuses on the specific competencies and behaviors required for success as an executive. The feedback process allows executives to compare their self-ratings to ratings by bosses, direct reports, and peers, and also to norms constructed from the data of executives who have previously taken the ESP.

Target Audience

The ESP is intended for executives, general managers, and high-potential managers.

Feedback Scales

The 140 items on the ESP form 22 competency scales.

Seasoned Judgment (8 items)
Applying broad and seasoned experience to critical business issues; analyzing symptoms; looking at problems from many angles; making wise, timely decisions; making tough, pragmatic decisions when necessary. Sample item: Makes tough, pragmatic decisions when necessary.

Visionary Thinking (7 items)
Having a vision for the business; maintaining a long-term, big-picture view; recognizing profitability and growth potential in business opportunities. Sample item: Comes up with fresh perspectives and innovative ideas.

Financial Acumen (5 items)
Understanding implications of key financial indicators; identifying soft spots in budgets and profit plans; using operating statements and other financial information when considering impact of actions. Sample item: Grasps the full meaning and interrelationships of key financial indicators.

Global Perspective (5 items)
Recognizing impact of global events on organizations; staying informed of trends in societal, political, and economic environments. Sample item: Understands the impact of global trends on the organization's plans and growth.

Shaping Strategy (6 items)
Developing broad business strategies, translating them into objectives, and ensuring action plans are developed; concentrating on priorities; making strategic decisions. Sample item: Identifies critical success factors in different business situations.

Driving Execution (9 items)
Tackling problems head-on; managing change; maintaining operating effectiveness; integrating efforts across functions; assigns clear authority and accountability. Sample item: Takes preventive measures to avoid crisis management.

Attracting and Developing Talent (7 items)
Attracting high-caliber talent; promoting succession planning and development of organizational leadership; investing personal time in developing direct reports; giving constructive feedback. Sample item: Attracts and selects high-caliber talent.

Empowering Others (7 items)
Creating a feeling of energy and excitement; giving people opportunity and latitude; influencing others to go beyond norms to achieve; promoting collaboration and team play; buffering direct reports from interference. Sample item: Creates a feeling of energy, excitement, and personal investment.

Leadership Versatility (7 items)
Playing a variety of leadership roles; adjusting style to the demands of the situation. Sample item: Plays a supportive and encouraging leadership role when appropriate.

Influencing and Negotiating (7 items)
Promoting ideas and proposals persuasively; building network of colleagues; shaping stockholder needs; negotiating business deals; overcoming resistance. Sample item: Promotes and sells ideas persuasively.

Building Organization Relationships (6 items)
Relating well to key colleagues (i.e., bosses, peers, and direct reports); making people feel

comfortable; staying in touch with employees at all levels. Sample item: Relates well to direct reports.

Fostering Open Dialogue (7 items)
Promoting two-way communication; encouraging expression of contrary views; getting unfiltered information; listening carefully to input and feedback. Sample item: Creates open channels of communication.

Inspiring Trust (5 items)
Establishing open, candid, trusting relationships; treating all individuals fairly and with respect; behaving in accord with expressed beliefs and commitments; maintaining high standards of integrity. Sample item: Maintains high standards of personal integrity.

High-impact Delivery (5 items)
Making high-impact presentations and inspiring confidence; projecting a credible executive image; handling questions well. Sample item: Delivers clear, well-organized presentations.

Drive for Stakeholder Success (7 items)
Pursuing aggressive goals; conveying commitment to understanding and doing what is best for shareholders, employees, customers, and the community; balancing priorities of different constituencies. Sample item: Effectively balances the competing priorities of different constituencies.

Entrepreneurial Risk Taking (4 items)
Seizing opportunities in the marketplace; stimulating organizational entrepreneurship; encouraging innovation and risk taking. Sample item: Creates an environment that encourages innovation and risk taking.

Mature Confidence (6 items)
Projecting self-assurance and unshakable confidence; standing up against criticism; maintaining high standards of personal integrity. Sample item: Readily shares credit and gives opportunities for visibility to others.

Adaptability (6 items)
Maintaining flexibility; resisting stress and working constructively under pressure; weathering setbacks successfully; accepting change; growing with the job. Sample item: Works constructively under stress and pressure.

Career and Self Direction (5 items)
Having personal, career, and organizational goals that are compatible and mutually reinforcing; pursuing continual learning and self-development. Sample item: Conveys a clear sense of personal goals and values.

Cross-functional Capability (7 items)
Understanding role and operation of each function and how they interrelate; having good general-management skills. Sample item: Displays strong general-management skills.

Industry Knowledge (4 items)
Knowing what it takes to be successful in this industry; understanding industry's history and trends; understanding competition. Sample item: Displays deep insight into the competition's strengths, weaknesses, and strategies.

Business Situation Versatility (12 items)
Functioning effectively in a variety of situations that present different challenges, such as finding new business opportunities, managing acquisitions, or running many businesses simultaneously. Sample item: Would have the talent required to run many organizational units simultaneously.

Executives also receive feedback on a composite scale, *Leading Continuous Improvement* (13 items). Items on this composite scale are drawn from behaviors from the other competencies.

Customization of the above feedback scales is available as a way for organizations to reflect their unique competencies and characteristics.

Response Scales

Respondents rate performance on each item using a 5-point scale:

1 = Not developed
2 = Underdeveloped
3 = Competent
4 = Very strong
5 = Outstanding
NA = Does not apply

Importance ratings are completed by the target executive and his or her boss(es). The respondent is asked to rate no more than 7 ESP competencies as Critically important and no more than 7 as Very important. The importance ratings have a 7-point scale:

1 or 2 = Important
3, 4, or 5 = Very important
6 or 7 = Critically important

INSTRUMENT DEVELOPMENT

Origin of Items: Theory/Experience

The ESP is based on continuing research by Personnel Decisions International (PDI) into the nature of executive work. It was initially developed in 1987 and revised in 1988, 1989, 1991, and 1993.

Early ESP research was based on more than 65 job-analysis interviews with executives representing a wide range of industries and organizations (Heine, Hellervik, Silzer, & Sloan, 1986). A thorough search of the literature on executive behavior and success was conducted during the same period (Peterson, 1987).

PDI consultants identified 28 success factors to be investigated further. They pooled their knowledge and experience from working with executives and developed 126 items that could be rated in a multi-rater feedback instrument. The first pilot of the ESP, conducted by several organizations, was subsequently refined into a more extensive instrument, with 185 items in 27 competencies. Further revisions produced a version with 185 items and 21 competencies, and the present version with 140 items and 22 competencies.

The 22 ESP competencies are grouped into 8 factors for descriptive reasons and for ease of use and interpretation. This structure has been well accepted by executives for nearly a decade; it provides a useful framework for understanding their feedback results.

The 8 ESP factors are:

1. Thinking (Seasoned Judgment, Visionary Thinking, Financial Acumen, and Global Perspective)
2. Strategic management (Shaping Strategy and Driving Execution)
3. Leadership (Attracting and Developing Talent, Empowering Others, Leadership Versatility, and Influencing and Negotiating)
4. Interpersonal (Building Organizational Relationships and Inspiring Trust)
5. Communication (Fostering Open Dialogue and High Impact Delivery)
6. Motivation (Drive for Stakeholder Success and Entrepreneurial Risk Taking)
7. Adjustment (Mature Confidence, Adaptability, and Career and Self Direction)
8. Breadth and Depth (Cross-functional Capability, Industry Knowledge, and Business Situation Versatility)

Development of Feedback Scales

Over 100 individuals, including 29 general managers and 33 directors, participated in the 1988 pilot of the ESP. Results from initial data analyses were promising (Holt, 1988). Item-scale correlations were computed and items within each major factor were factor-analyzed to determine which items should be kept as is, reassigned to other dimensions, or eliminated from the instrument. When mean differences in ratings for directors and general managers were analyzed, the differences were significant in only 4 of the 27 dimensions; 6 dimensions were subsequently eliminated, and many of the items were revised. Several research questions were added to help evaluate whether the items and dimensions were distinguishing high-performing executives. An "Importance Ratings" section was added to provide a vehicle for executives and their bosses to communicate with each other about the most critical factors in the executive's job.

The 1989 pilot (Holt, 1989) included 580 executives, 490 of whom held director-level positions in their organizations. Executive norms were established for 21 ESP dimensions. Minor revisions were made to the item content. Several additional research questions were added to the demographic section to explore the relationship between executive "effectiveness" and "success."

This version of the ESP was used with over 1,500 executives. Preliminary factor analyses of the dimensions showed a much simpler structure than the originally proposed 8-factor model (Holt, 1988, 1989, 1991). Factor-analysis results and item-scale correlations were used in making revisions, yet some dimensions remained highly correlated.

Item-scale correlations, performance relationships, and reliability data were analyzed to determine which items had the "best" psychometric properties (Holt, 1991). Forty-five items were eliminated, resulting in the 140 items on the present version. Additionally, the competencies were slightly reconfigured for the present version.

Reliability

Test-retest

Currently, no data are available.

Internal consistency

Cronbach's alpha values were computed for each perspective in a sample of 1,450 executives. Values for boss ratings on the 22 scales range from .69 (Industry Knowledge) to .90 (Financial Acumen). Values for direct report ratings range from .79 (Industry Knowledge) to .93 (Financial Acumen). Values for peer ratings range from .75 (Industry Knowledge) to .94 (Business Acumen). The values for self-ratings tend to be the lowest, ranging from .63 (Industry Knowledge) to .87 (Financial Acumen).

Interrater

Currently, no data are available.

Validity

PDI took a content-related approach to the development of the ESP. As described previously, they conducted interviews and reviewed the literature to identify the dimensions (or content) of successful executive behavior. Items were written and rewritten in an effort to best represent the behavioral-content domain of particular skills.

A study of the 1989 version of the ESP (Holt, 1989) showed clear support for the relationship between the executive behaviors being measured and successful performance on the job.

Holt (1991) conducted an analysis to address the question of whether ESP dimensions and items are able to differentiate high-performing executives from others. Data were collected from 1,002 executives and their respondents on the following question: "If this person's overall performance was evaluated on a 100-point scale (100=highest, 0=lowest), what would your rating be?" Two subsets of the data were constructed. One set contained data for the top 25% performers (*N*=248, with performance scores 86 and above). The other contained the bottom 25% performers (*N*=246, with performance scores 74 and below). The groups' mean non-self ratings were compared via t-tests across all 21 ESP dimensions. Significant mean differences were found on every dimension. (For example, the Seasoned Judgment mean was 5.5 for the top performers and only 4.4 for the bottom performers.) These finding were replicated in a smaller data set of general manager and higher data.

When differences between the high- and low-performing executives were analyzed at the item level, significant differences were found in 184 of the 185 ESP items. The single item that did not differentiate between the groups (Anticipate Threats from Overseas Competitors) was eliminated from the ESP.

Overall performance (as rated by others) was regressed onto the average non-self rating for each dimension. Two dimensions, Empowering Others and Business Situation Versatility, were significant predictors of overall effectiveness in the larger ESP database (*N*=1,027) and also in the subset of general managers and higher (*N*=424). The low R-squared values for the regressions and high multicollinearity in the present item/scale construction make it difficult to interpret the regression results.

In a study using the current version of the ESP, Sloan, Hezlett, Kuncel, and Sytsma (1996) investigated 3 measures of executive success: performance, potential, and peril avoidance. Each executive's boss rated his or her overall performance, indicated the highest level the executive would attain, and reported the executive's risk of experiencing career difficulty. These 3 success measures were correlated with others' ratings from the ESP. All 22 competencies were significantly related to the success measures, providing further evidence of the validity of the ESP. The best predictors of executive success were: Visionary Thinking, Shaping Strategy, Influencing and Negotiating, Seasoned Judgment, and Adaptability.

Other Research

Gender differences have been analyzed and reported (Holt & Mount, 1991). Ratings of the women's overall performance were regressed on the 21 dimensions of an earlier version of the ESP to identify the most significant predictors of effectiveness. Some interesting differences were also found in the ratings for some competencies (for example, male executives rated themselves higher on Financial Acumen, Strategic Business Planning, Industry Knowledge, and Business Situation Versatility, but not on other competencies). No differences were found in the percent of time women and men reported spending in traditional management activities, as opposed to communicating, networking, or human resource management. Women were rated higher by others on 13 of the 21 competencies; men were rated higher only on Financial Acumen.

A Caution Statement on Misinterpretations

The ESP is an instrument developed to provide feedback and development focus and recommendations to individuals about their skill strengths and development needs. It should not be used as the sole source of information concerning selection, promotion, salary review and adjustment, dehiring (firing), and/or deselecting decisions.

International Use

Translations

The ESP questionnaires have been translated into German and Japanese. The ESP has been used internationally since it was developed.

CHARACTERISTICS OF FEEDBACK

Types of Feedback Display: BAR GRAPHS, GRIDS/PLOTS, and NARRATIVE

The feedback display is comprised of modified bar graphs and narrative text. Shaded bars are used to indicate the mid-range (that is, the middle 50% of the ratings) for the norm group, while symbols are superimposed over the norm to contrast self- and other ratings.

The section entitled "Focus for Development" reports strengths and development needs. Strengths represent the 3 competencies that were rated highest by others relative to the norm group. Possible areas for improvement represent the 3 competencies that were rated lowest by others relative to the norm group.

SPECIFIC QUESTION RESULTS

Pat Executive

Name

THINKING	RATING Self	RATINGS BY OTHERS Boss	DirRpt	Peer/Coll	Avg
SEASONED JUDGMENT	**3.75**	**3.88**	**4.13**	**3.65**	**3.88**
Apply broad knowledge and seasoned experience to address critical issues	[5.00]	4.00	4.50	4.00	4.17
Define issues clearly despite incomplete or ambiguous information	4.00	5.00	4.00	4.00	4.33
Dig deeply to get the necessary information for decision making	3.00	5.00	4.50	****	[4.75]
Link problems and symptoms to identify underlying strategic issues	[5.00]	4.00	4.50	[4.67]	4.39
Creatively integrate different ideas and perspectives	3.00	(1.00)	(2.50)	3.00	(2.17)
Take all important issues into account when making decisions	(2.00)	3.00	3.00	(2.33)	2.78
Come to a decision at the right time	4.00	4.00	[5.00]	3.67	4.22
Make tough, pragmatic decisions when necessary	4.00	5.00	[5.00]	3.67	4.56
VISIONARY THINKING	**3.57**	**3.43**	**3.43**	**3.33**	**3.40**
Have a clear vision for the future of the business or organization	(2.00)	[5.00]	4.00	****	4.50
Convey a sense of purpose and mission that captures the imagination of others	[5.00]	3.00	2.50	(2.00)	(2.50)
See problems and understand issues before others do	[5.00]	4.00	4.00	[4.67]	4.22
Challenge status quo thinking and assumptions	3.00	3.00	3.50	3.67	3.39
Come up with fresh perspectives and innovative ideas	4.00	(2.00)	2.50	3.00	(2.50)
Recognize when it is time to shift strategic direction	3.00	(2.00)	2.50	3.33	2.61
Maintain a long-term, big-picture view of the business	3.00	[5.00]	[5.00]	****	[5.00]

[ ] = 1 or 2 highest rated items in each competency for each perspective
( ) = 1 or 2 lowest rated items in each competency for each perspective
(If 3 or more ratings are equally high or low none are shown)

Bold = Average of items in this dimension

**** = Item or competency not scored due to missing data
(At least 2 responses are needed)

BEST COPY AVAILABLE

PDI offers customized feedback reports at the client's request. In addition, composite reports are available to help clients assess training and development needs.

Breakout of Rater Responses

For each scale, 5 summary scores are presented: self-ratings, the average scale scores for each perspective (boss, peer, and direct report), and an overall others rating. Executives also have the option of adding a sixth perspective, which may represent a second boss, a second direct report, a second peer group, customers, or members of the board of directors. If a sixth perspective is used, the average of these ratings is reported.

Feedback Delivery Strategies

Comparison to norms
Self-ratings and ratings by others are compared to the range of ratings received by the middle 50% of managers in the norm group. Also, the Focus for Development takes into account normative information when identifying strengths and development needs.

The 1996 norms are based on 3,062 executives with an average age of 46. Approximately 90% of this group was male, and over half had completed graduate degrees.

Highlighting largest self/rater discrepancies
The first section of the feedback report (the Competency Overview) presents self/other comparisons. Discrepancies greater than .5 on the rating scale (approximately 1 standard deviation) trigger symbols to appear in the "discrepancy" column of the feedback report, indicating if self-ratings were higher or lower than others' ratings.

Item-level feedback
Mean ratings on all ESP items by perspective are provided.

Highlighting high/low items and scales
The feedback includes the 20 highest and 20 lowest items, in rank order according to the average of others' ratings. The bottom 20 items are particularly useful in pinpointing development issues that cut across scales. Likewise, the top 20 items show scale trends for areas of strength.

The section of the report providing item-level feedback reports how items were rated by each perspective. Brackets are placed around the 1 or 2 highest-rated items by perspective within each dimension. Parentheses are similarly used to indicate the lowest-rated items. These symbols help the executive search for trends and discrepancies in the data (for example, items where they rated themselves high while others rated them low).

Importance to job or success
A bar graph compares the executive's importance ratings to those of his or her boss(es). These data are combined with the average others' competency ratings for each dimension to produce a separate matrix that highlights the executive's most critical strengths and development needs in the present job.

SUPPORT AND DEVELOPMENTAL MATERIALS

Support for Participant

Development and planning guide
A copy of the interpretive guide accompanies every feedback report. This guide contains sample pages from each section of the feedback report and explains how to interpret the information (format, symbols, etc.) contained in the person's own feedback report. It also provides the executive with a step-by-step method for building on strengths and addressing development needs in constructing a development plan. The sample development plan in the back of the guide shows the executive what level of specificity is needed in setting objectives and formulating action plans. The interpretive guide is packaged with a blank action plan for the executive to complete.

Post-assessment
Change Reports are available for executives who wish to retake the ESP and compare their scores to a previous implementation. Executives receive their Change Reports when they receive their second set of ESP feedback reports.

Vendor hotline
PDI has a hotline participants can call for information.

Summary worksheets
Worksheets are provided in the interpretive guide.

Support for Trainer

Trainers' guide/manual
A manual is furnished to certified trainers. It provides a script, plus overheads, for use in conducting the executive orientation or kick-off meeting. The manual includes sample copies of the self/respondent questionnaires, an interpretive guide, a worksheet on definitions and development priorities, and an individual development plan. It contains a step-by-step guide to preparing and conducting a feedback session and also outlines alternative feedback meetings and follow-up sessions (for example, a 3-way discussion with the boss).

Workshop
Trainers must be certified to provide ESP feedback by attending an orientation workshop. The trainers are provided with the manual described above during this workshop.

Supplemental norms
Trainers may order a group report for a group of executives who receive their feedback in the same workshop/time period. This report shows on an aggregate level how the group members rate themselves and how their respondents rated them, relative to the norm. It also reports the aggregate number of strengths and development needs at a skill and item level.

Local (organization-specific) norms can be provided for organizations or parts of organizations that process a sufficient number of ESPs and want to establish their own comparisons.

PDI has also customized the ESP for use in several different kinds of organizations. Customized feedback reports may include organization-specific development suggestions.

Supplemental materials from the vendor
Many executives receive a copy of PDI's *Executive Handbook* at the time of their feedback. This book contains on-the-job development suggestions, readings, and information on seminars appropriate to executive-level positions.

Other publications are available to support development efforts. *Development FIRST* (Peterson & Hicks, 1995) provides a practical approach to development. A research-based model is explained, with 5 core strategies for continuous learning.

DevelopMentor® is a Windows-based software tool that integrates assessment development planning and learning activities into the development process. The software has the ability to import data from the ESP and can be customized to meet specific organizational needs.

PDI staff members will consult with internal consultants on the preparation of development plans for their executives.

Certification Requirement

A 1-day orientation process is available through PDI. Attendance at a 2-day ESP Certification Workshop is a prerequisite to the ESP orientation course. The ESP is sold only to approved or certified users.

Scoring Process

A scannable form is scored by the vendor. An intranet-based version of the ESP is also available. Turnaround time, once all forms are received, is 5 to 7 business days.

OTHER CONSIDERATIONS

Cost

The cost of the ESP varies depending upon volume. The price includes 1 self and 12 observer forms, 4 additional observer forms for the optional respondent group, scoring, and the interpretive guide. Please contact vendor for more information.

Length of Instrument

The ESP has 140 items on skill/behavior effectiveness and 22 scales on the importance of competencies to the executive's job. It takes approximately 30 minutes to complete.

Open architecture (customization) allows addition, deletion, and/or modification of items and competencies to meet specific client needs.

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SURVEY OF EXECUTIVE LEADERSHIP (EXEC)

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Copyright Dates: 1996, 1997

Statement of Purpose

The Survey of Executive Leadership (EXEC) provides feedback to top-level executives on dimensions such as dealing with higher-level organizational complexities and maintaining a perspective on the marketplace. The top management job is viewed from the broad perspective of the total organization.

Target Audience

EXEC is for top management—the CEO, president, executive director, board of directors, and senior vice presidents. Raters are the executive's peers, boss, and direct reports.

Feedback Scales

Observable skills (A through N) are grouped by 5 Phases in the Executive Task•Cycle, followed by an assessment of Outcomes and Power Sources (O through Q).

THE EXECUTIVE TASK•CYCLE

Phase I: Forward Thrust

(A) *Leadership vision* (6 items)
Steering toward change, improved quality, concern for employees and public. Sample item: Acts in a way that makes us a progressive, global organization.

(B) *Risk-taking/Venturesomeness* (5 items)
Willingness to take chances for the good of the organization. Sample item: Tries new things for improvement.

Phase II: Executive Perspective

(C) *Financial and operational analysis* (5 items)
Uses financial and numerical data in making decisions. Sample item: Uses financial and operational data effectively.

(D) *Marketplace savvy* (5 items)
Keeping abreast of customer, industry, and market changes. Sample item: Interprets changes in our markets quickly and accurately.

(E) *Organization savvy* (5 items)
Alertness to organization politics, dynamics, and stakeholders' response to change. Sample item: Interprets internal politics perceptively and accurately.

(F) *Judgment* (6 items)
Uses information effectively and articulates decisions clearly. Sample item: Explains his or her reasoning clearly and carefully.

Phase III: Executive Implementation

(G) *Decisiveness* (5 items)
Focuses on central issues and makes decisions quickly. Sample item: Evaluates competing priorities and makes balanced decisions.

(H) *Team growth and development* (6 items)
Fosters a team culture of cooperation and coordination. Sample item: Works effectively across functions and locations.

(I) *Cultural appreciation* (6 items)
Values and capitalizes on workplace diversity. Sample item: Works well with others no matter what gender, race, or culture.

Phase IV: Drive

(J) *Standards of performance* (4 items)
Makes sure people know that only the best is expected. Sample item: Lets you know that whatever you do must be done well.

(K) *Executive energy* (6 items)
Shows enthusiasm for the task at hand and building business opportunities. Sample item: Is enthusiastic about our business and our opportunities.

(L) *Push/Pressure* (4 items)
Pushing others to achieve goals. If not supported by skills in Phases I through III, a high score can mean abrasiveness. Sample item: Exerts more pressure than is needed.

(M) *Coping with stress* (4 items)
Ability to remain calm and face problems in a business-like fashion. Sample item: Works through conflicts in a balanced way.

Phase V: Acknowledging Contributions

(N) *Sharing credit* (4 items)
Making sure others get deserved credit for the organization's good performance. Sample item: Expresses appreciation for people's efforts.

OUTCOMES

Personal Impact
(O) *Effectiveness/Outcomes* (5 items)
An overall evaluation; the impact of an individual on the group. Sample item: Converts ideas into practical reality.

POWER SOURCES

(P) *Temporary sources of power* (4 items)
Derives influence from sources outside his or her control. Sample item: Personal connections with highly placed or other influential people.

(Q) *Lasting sources of power* (4 items)
Derives influence from personal competence. Sample item: A high degree of functional expertise.

EXEC includes 3 open-ended questions on the back page. The questions are: (1) What does this person do that should be continued? (2) What should this person do to be more effective? (3) What does this person do that should be stopped?

Response Scale

Respondents are asked to rate the manager using a range of 1 to 7. Anchors are provided at the ends of the scale and at the midpoint.

1 = Never or to a Small Extent
4 = Usually or to an Average Extent
7 = Always or to a Great Extent

INSTRUMENT DEVELOPMENT

Origin of Items: Theory/Experience

The Survey of Executive Leadership is drawn from Task•Cycle Theory applied to the leadership process (Wilson, O'Hare, & Shipper, 1990). According to this theory, organization behavior consists of a series of tasks. A task is seen as consisting of sequential phases: a goal, a plan, resources, feedback, adjustment, and reinforcement. The sum of repetitions of varying tasks totals up to the work of the unit or individual. This recycling of tasks is the means by which influence is exercised in organizations. The theory draws heavily on cognitive-learning theory (Bolles, 1972; Hilgard, 1956; Hilgard & Bower, 1966; Tolman, 1932).

Using insights into what managers actually do (Drucker, 1954; Weiner, 1948), Wilson first applied Task•Cycle Theory to the managerial role (see the summary of the SMP, pages 282-294). He views leadership as an extension of the managerial role, but it focuses more on bringing about beneficial change: "The key elements in leadership are the vision to identify positive changes and the skills to bring them about; as distinct from—but in addition to—the managerial skills of facilitating more immediate operating goal-seeking activities" (Wilson & Wilson, 1989, p. B2-2). The wide and long view of the organization's role in the marketplace, and the responsibility of the executive to develop that view, is what distinguishes executive leadership from the leadership skills necessary at lower levels in an organization.

EXEC addresses how well executives handle the complexities of top management. It assesses their knowledge of the environment within their organization as well as the larger market. It also looks at how well these executives develop their top staff.

Development of Feedback Scales

Items were written to capture hypothesized dimensions of behavior relevant to the leadership role. Item responses were factor-analyzed (by each respondent category) to see whether items clustered in meaningful dimensions. The authors set a target of 50% independence between scales (as measured by the reliability of difference scores statistic), and all the scales on EXEC meet this criteria.

Second-Order Factor Results
Recent factor analysis reveals the importance of 3 superfactors, also called competencies, in

EXEC as well as other Clark Wilson surveys. These 3 broad factors, which contribute to a participant's success in the leadership role, are: *Structure, Relations,* and *Drive.*

Structure includes scales that measure a person's initiative and expertise, such as Leadership vision, Risk-taking/Venturesomeness, Financial and operational analysis, Marketplace savvy, Organization savvy, Judgment, and Decisiveness. *Relations* includes dimensions that address interpersonal relations, such as Team growth and development, Cultural appreciation, Coping with stress, and Sharing credit. *Drive* refers to control skills such as Standards of performance, Executive energy, and Push/Pressure.

When the 3 competencies are compared to an Effectiveness rating, participants fall into 1 of 8 styles of leadership. The company has developed a presentation called the "Style 8 Chart" that can show the ratings of any executive in Effectiveness.

Reliability

Test-retest
Currently, no data are available.

Internal consistency
EXEC scale reliabilities range from .71 (Organization savvy) to .87 (Sharing credit).

Interrater
Currently, no data are available.

Validity

The Effectiveness scale within EXEC itself serves as a validity measurement. When data on the 3 competencies (see discussion on second-order factors above) is compared to the Effectiveness scale, the results fall into 8 styles. In Style 1, the factor scores are all LOW, moving to Style 8 where each factor score is HIGH. The highest ratings in Effectiveness are seen in Styles 7 and 8. In Style 7, Structure and Relations are HIGH and Drive is LOW; in Style 8, Structure, Relations and Drive are all HIGH.

Research on these superfactors show marked indications of validity for the concept of "Balance," which is achieved when all competencies are HIGH. Therefore, the most effective leaders are those whose competencies balance above norms, with the possible exception of Drive, which can be LOW when the other 2 competencies are HIGH.

A Caution Statement on Misinterpretations

Clark Wilson surveys are designed to be used for coaching and developmental purposes only. The individual receiving feedback may share the confidential report with others at his or her discretion. Misuses of Clark Wilson instruments would consist of not honoring the confidential nature of the feedback report or using the survey results to take personnel actions. The surveys should not be used for performance appraisal, selection, or any other actions not related to individual development.

International Use

Translations
The EXEC survey has been translated into 10 languages besides English. These include: Chinese (simplified), Chinese (traditional), French, German, Italian, Japanese, Korean, Portuguese, Spanish (Latin America and Mexico), and Spanish (Spain and Argentina).

International norms
Under development.

Internationally tested for validity/reliability
Under development.

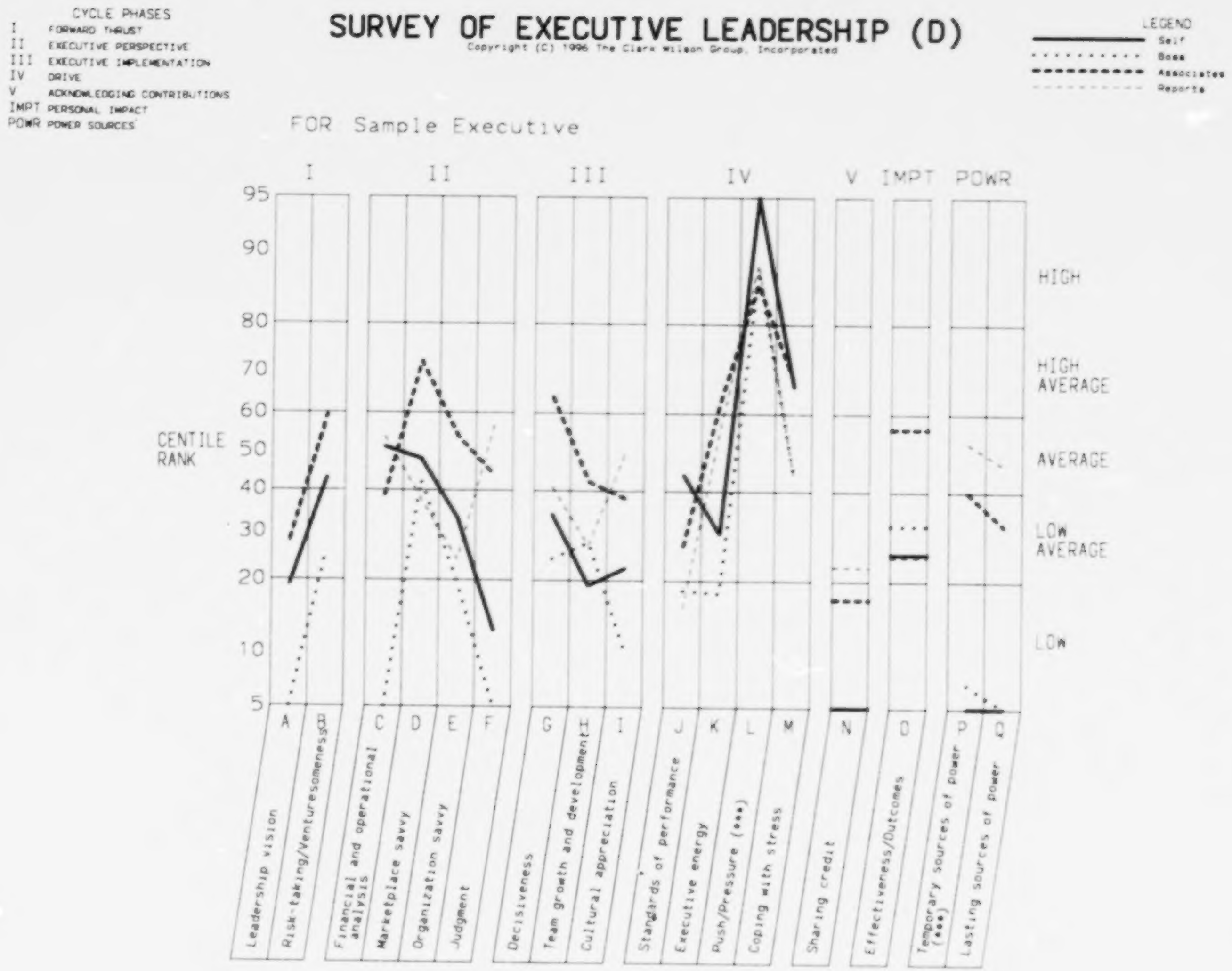
CHARACTERISTICS OF FEEDBACK

The Clark Wilson Group (CWG) Feedback Report is currently under revision, and the new report will be available for users in 1998. Enhancements will include: improved graphic displays of data, list of 10 highest and 10 lowest scoring items, second-order factor analysis data and individual profiling, and a Task•Cycle graphic on each page to facilitate learning from the model.

Types of Feedback Display: LINE GRAPH and NARRATIVE

The narrative portion of the feedback provides written details of raters' responses on each of the scales and items. This portion of the feedback also provides a written explanation of how the scales are interrelated and how the Task•Cycle model relates to managers' overall performance.

Item-level feedback is provided in the narrative portion of the feedback.



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Breakout of Rater Responses

Self-report data are compared to data from peers, direct reports, and boss. Rater responses can be combined at the request of the client.

Feedback Delivery Strategies

Comparison to norms
The Feedback Report provides direct comparisons to norms for each dimension and each perspective (self, boss, reports, and peers) in the narrative portion of the Feedback Report, and indirect comparisons when the scores are graphed as percentiles.

General norms are drawn from over 1,000 executives in various industries in the United States, Europe, Asia, and South America. Specific industry samples may be smaller. Users are encouraged to develop their own norms. If a user's initial results are significantly different from the general norms, CWG may recommend using the general norms at the beginning.

Highlighting largest self/rater discrepancies
The EXEC highlights self and rater discrepancies by listing whether the scales are a visible strength (self-rating is high and other ratings are high), unrealized strength (self-rating is lower than other ratings), acknowledged soft spot (self-rating is low and other ratings are low), or a blind spot gap (self-rating is higher than other ratings).

Item-level feedback
Included in the narrative report.

Highlighting high/low items and scales
Currently not included, but will be available in the new Feedback Report format.

Comparison to ideal
An optional section of the Feedback Report includes the Style 8 Chart, showing 8 styles compared to a rating on the ideal of Effectiveness. The chart shows how having a balance of skills in the Structure, Relations, and Drive competencies (Styles 7 and 8) yields the highest scores on Effectiveness. Participants can calculate their own styles and compare them to the chart for Effectiveness. An exercise for groups and composite profiles has been developed for this comparison as well.

Importance to job or success
See above description of Style 8 Chart for Effectiveness.

"Do more/do less"
With a new emphasis on the 3 competencies and comparison to a desirable outcome, Wilson now places a major emphasis on which scores need to be improved.

Three open-ended questions at the end of the survey allow raters to write their comments: (1) What does this person do that should be continued? (2) What should this person do to be more effective? (3) What does this person do that should be stopped?

Others
An asterisk is used to indicate items where there was disagreement within a group of raters. A standard deviation of 1.2, known as a Disagreement Index (DI), is used to suggest that the executive may be inconsistent in the way he or she relates to others.

SUPPORT AND DEVELOPMENTAL MATERIALS

Support for Participant

Development and planning guides
Two *Resource Guides*, 1 for Management and 1 for Leadership, offer developmental suggestions and tips organized by the dimensions of CWG surveys. It is also an aid for the coach or feedback-giver as a resource of practical ideas for participants who need this developmental help. The Leadership Resource Guide covers the EXEC survey.

Post-assessment
After 6 months or a year, the EXEC can be re-administered for Time 1–Time 2 comparisons.

Vendor hotline
Participants can call a toll-free number for further assistance.

Support for Trainer

Trainers' guide/manual
Meaningful Measures (MM; Wilson, Wilson, & Wilson, 1996) covers the full battery of CWG feedback surveys. It is written for all human resources professionals interested in implementing a 360-degree feedback system. MM contains important background information: the theory and research behind CWG instruments, a full description of surveys with training aids, and a practical guide about how to implement a 360-degree feedback program. A second volume of MM includes sample surveys, feedback reports, and validation studies, and is available at the time of qualification.

Workshop

A Qualifications Workshop is available. The workshop introduces trainers to the EXEC's development, theoretical origins, feedback, and interpretation.

Supplemental norms

Group profiles—composite reports—of multiple participants are available. The vendor encourages organizations to establish their own norms.

Supplemental materials from the vendor

Overhead transparencies are available from the vendor.

Certification Requirement

Users (either in-house or consultants) are required to attend a Qualifications Workshop on interpretation and feedback. The workshop is offered twice a year through CWG headquarters, and more frequently through regional distributors, or upon request for a private session.

Scoring Process

The distributors provide computer-scoring services. Turnaround time is 5 working days for 300 to 500 questionnaires.

Disk-based and on-line software for self-administering surveys is also available through the vendor. The cost of the software version is the same as the vendor-scored version.

OTHER CONSIDERATIONS

Cost

EXEC is sold through regional distributors to consultants and end-users. End-user prices are \$20 per survey to purchase and \$7 to \$9 per survey for scoring (volume discounts apply). Discounts for large quantities may be available through distributors.

Meaningful Measures costs \$42.50. Resource Guides are \$25 per bound copy, \$150 for a limited-license disk.

Composite Reports are \$65 each. Additional reports and special add-on features are available, prices upon request.

Length of Instrument

EXEC consists of 84 items and 3 open-ended questions. It can be completed in 25 to 30 minutes.

Open architecture allows addition of items at client's request.

EXEC Bibliography

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LEADER BEHAVIOR ANALYSIS II™ (LBAII™)

Vendor: Blanchard Training and Development, Inc.
125 State Place
Escondido, CA 92025
(760) 489-5005
(800) 728-6000

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Blanchard Training and Development, Inc.

Copyright Dates: 1985, 1991

Statement of Purpose

The Leader Behavior Analysis II (LBAII) is a diagnostic tool that gives participants information about perceptions of their leadership style, their ability to use more than 1 style, and their effectiveness in matching their choice of style to the needs of the situation.

Target Audience

The LBAII is applicable to both middle- and upper-level managers.

Feedback Scales

People completing this instrument are given 20 brief (2- to 3-sentence) descriptions of leadership challenges and asked to indicate how the leader in question would act in these situations by choosing 1 of 4 possible actions. Each action falls into 1 of the quadrants of a directive/supportive model of behavior. For example:

> A highly productive and efficient woman on the staff has asked for help on a project. She is accustomed to working effectively on her own. Recently, work problems have developed . . . THIS LEADER WOULD . . .
>
> a. Analyze problems and outline solutions.
> b. Give her complete independence to solve the problems.
> c. Help her problem solve and implement solution.
> d. Discuss with her the problems and encourage her to implement any solution.

The responses are used to calculate scores on 6 scales.

Leadership style
There are 4 scales that relate to leadership style, which are derived from the number of responses recorded per quadrant on completed LBAII forms: high directive/low supportive, high directive/high supportive, low directive/high supportive, and low directive/low supportive. The quadrant with the highest number of responses indicates the ratee's "primary style." Four or more responses in the remaining quadrants indicate a "secondary style."

Leadership-style flexibility
The fifth scale relates to flexibility of leadership style. It is meant to indicate the extent to which the manager may be "treating everyone the same" or "treating people differently." The score is a numerical indicator of how often the respondent chose a different style.

Leadership-style effectiveness
The sixth scale relates to effectiveness of leadership style. It indicates the extent to which the manager attends to situational variables or developmental clues and adjusts his or her leadership style accordingly. The leadership-style effectiveness score is a numerical representation of the respondent's appropriate choice of style for the 20 situations.

Response Scale

Each of the 20 leadership situations has 4 possible item responses, coded into 1 of the following quadrants:

S1 = High directive/low supportive behavior
S2 = High directive/high supportive behavior
S3 = Low directive/high supportive behavior
S4 = Low directive/low supportive behavior

INSTRUMENT DEVELOPMENT

Origin of Items: Theory/Experience

The LBAII is based on Hersey and Blanchard's situational leadership model, which identifies the amount of direction (the extent to which the leader engages in 1-way communication) and the amount of socioemotional support (the extent to which the leader engages in 2-way communication and relationship building) that are needed within different situations.

Development of Feedback Scales

The items that comprise the LBAII were selected because of their conceptual coherence, their high level of intercorrelations, and their correlations with the previously validated Multilevel Management Survey (MLMS; Wilson, 1981) subscales.

Reliability

Test-retest

Nye (1986), in a study of the self scores of 24 managers on the Flexibility scale, reported an Index of Stability coefficient of .72. The remainder of the scales have not been tested.

Internal consistency

Internal-consistency reliability findings on a 1993 sample of 313 others' ratings range from .73 (Style 2) to .81 (Style 1).

Reliabilities from 1993 data of 49 self-ratings range from .45 (Style 4) to .70 (Style 3).

In a study of item characteristics in self-ratings, Punch (1987) investigated the meaning and unidimensionality of Effectiveness scale scores by using the Rasch measurement model as a method of analysis. The Rasch model permits a comprehensive analysis of the patterns of choices to the items on the scale. It statistically evaluates the discrepancy between what is theoretically expected (how the items are expected to act) and what actually happens (how the items fall on a natural logistic curve). The test of fit is performed on the magnitude of discrepancy between observed and expected outcomes. Punch reported that 15 items fit the rating response model very well; 2 items overdiscriminated, which is desirable from a psychometric point of view; and 3 items dropped below the discriminating threshold.

Interrater

Currently, no data are available.

Validity

A study comparing 552 subordinates' ratings of 122 managers on the 6 scales (Style 1, Style 2, Style 3, Style 4, Flexibility, Effectiveness) with scores on 15 leadership behavior scales from Wilson's (1981) MLMS support predicted hypotheses. Correlational analyses showed managers who most frequently use a low support style (Styles 1 and 4) tend to be rated lower on many scales. Styles 1 and 4 (both low support) were each negatively correlated with 13 of the MLMS scales. Managers who more frequently use a style characterized by high support (Styles 2 and 3) tended to be rated higher on many MLMS scales. Style 2 was positively correlated with 8 of the MLMS scales, whereas Style 3 was positively correlated with 13 of the scales.

None of the scale scores on the Flexibility scale were significantly correlated with the MLMS scales. The authors of LBAII (Zigarmi, Edeburn, & Blanchard, 1993) believe this finding is to be expected because of the inconsistent nature of flexibility. They state, "In keeping with the logic of Situational Leadership theory, the capacity to be a flexible manager is a prerequisite for being effective, but to be effective involves the capacity to understand when to use the styles appropriately. There is a need then to be effectively flexible" (p. 24).

The Effectiveness scores by others were significantly and positively correlated with 13 of the first 15 MLMS subscales. The exceptions were Control of Details and Goal Pressure.

A stepwise regression was used to further explore the relationship between scale scores for others on the MLMS and the LBAII. In these analyses, the 15 MLMS scales were separated into 2 groups according to Wilson's (1981) categorization of them as either task-related (11 scales) or interpersonal (4 scales) in nature.

The overall results indicated that Style 1 was significantly related to the task cycle subscales and negatively related to the interpersonal subscales. The first MLMS subscale identified in the stepwise regression was Delegation (negatively related), which accounted for 36% of the variance. The second variable entered (Goal Pressure, positively related) increased the variance explained by 9%. Control of Detail (+), Upward Communication (-), Orderly Work Plan (-), Time Emphasis (+), Expertise (-), Goal Clarity (-), Recognition (-), and Work Facilitation (-) increased the variance explained as well. All 4 of the MLMS interpersonal subscales were negatively related to Style 1 scores and accounted for 28% of the variance.

The best predictor of Style 2 behavior among the MLMS task-related scales was Orderly Work Planning (positively related), explaining 11% of the variance. The second best predictor was Time Emphasis (+), followed by Feedback (+), Upward Communication (+), Expertise (+), Control of Details (+), and Goal Clarity (+). Almost 20% of the variance was explained by these 7 subscales. Among the interpersonal scales, the best predictor of Style 2 behavior was Building Trust (+). Overall, the 4 interpersonal scales explained about 10% of the variance in Style 2 behavior.

For Style 3, the best predictor among the task-related subscales was Upward Communications (+), which alone explained 40% of the variance in Style 3 behavior. Other significant predictors include Goal Pressure (-), Feedback (+), Time Emphasis (-), Orderly Work Plan (+), and Control of Details (-). Together these 6 subscales explained 52% of the variance in Style 3 behavior. The 4 interpersonal subscales in combination explained nearly 50% of the variance in Style 3 behavior. All 4 were positively related to Style 3.

The stepwise analyses of Style 4 behavior accounted for 50% of the variance, with Orderly Work Plan being the strongest predictor (-), followed by Control of Details (-), Upward Communication (-), Delegation (+), and Expertise (-). Among the interpersonal subscales, the best predictor was Team Building (23% of the variance), with the 4 subscales accounting for

26% of the variance in Style 4. None of the MLMS task or interpersonal subscales were significant predictors of Flexibility.

Regression analyses for the Effectiveness scores and MLMS task subscales showed positive results. Goal Clarity was the most significant predictor (+), explaining almost 16% of the variance in Effectiveness. Other important predictors include Control of Detail (+), Orderly Work Plan (+), Time Emphasis (+), Upward Communications (+), Delegation (+), Goal Pressure (-), and Recognition of Good Performance (+). A similar finding occurred when the interpersonal subscales were regressed on the LBAII Effectiveness score. All the scales were significantly related, with Building Trust being the best predictor (R-squared = .15), followed by Interest in Subordinate Growth, Approachability, and Team Building (total variance explained equals 17%).

The final component of this study was an analysis of variance that compared the top third of the 122 managers with the bottom third. The dependent variables included the 8 Group Motivation subscales of the MLMS, which assess the followers' perceptions of Work Involvement, Co-worker Competence, Team Atmosphere, Opportunity for Growth, Tension Level, Climate, Morale, and Commitment. For Style 1, 5 of the 8 subscales differed significantly for the 2 groups (high and low). For Style 2, 2 of the 8 subscales showed significant differences between groups. For Style 3, 6 of the 8 scales were different when the 2 groups were compared, and for Style 4, 4 of the 8. While none of the subscales differentiated between the 2 groups on Flexibility, 3 showed significant differences between the high and low groups on the Effectiveness rating. These findings indicated that managers who had high Effectiveness scores were seen as being more interested in subordinate growth and as having lower organization tension levels and higher general morale than managers with low Effectiveness scores.

Jacobsen (1984) investigated the relationship between the LBAII and the Leader Behavior Description Questionnaire (LBDQ) using the ratings of 731 direct reports. He found that Styles 1 and 2 from the LBAII Other were positively related to Structure as measured by the LBDQ, whereas Styles 2 and 3 were positively related to LBDQ Consideration. The results indicate that similar constructs on the 2 instruments are not only theoretically related but are also empirically related.

A Caution Statement on Misinterpretations

When interpreting the results of the LBAII Profile, it is important to keep in mind that an appropriate match of leadership style can only be *confirmed* through discussion with various direct reports who "experience" the leadership style.

Also, when trying to increase the use of a particular style, the user must understand which behaviors constitute Directive and Supportive behaviors as advocated in the Situational Leadership® II Model, and then use those behaviors more frequently and appropriately.

Researchers are reminded that the principal scores of Flexibility and Effectiveness are linear and can be analyzed by parametric statistical methods. The style scores are ipsative and require the use of non-parametric statistics.

International Use

Translations
The LBAII has been translated into French, German, and Spanish.

International norms
Norms specific to each of the instrument's international audience are provided in the Leadership Style Profile.

Internationally tested for validity/reliability
Research conducted on the Spanish version of the LBAII (Martin, 1990) compared self-ratings from 100 Venezuelan administrators (principals, supervisors, superintendents, and faculty members representing 8 colleges or technological institutions). The results indicated that the internal consistency for the Spanish version was comparable to the English version.

CHARACTERISTICS OF FEEDBACK

Type of Feedback Display: QUADRANT

Quadrants representing each of the 4 leadership styles are used throughout the feedback.

Breakout of Rater Responses

Leadership Style and Leadership-style Flexibility scores from raters are presented for each rater category (direct reports, associates, and superiors). Leadership-style Effectiveness scores from all other raters also are presented.

Feedback Delivery Strategies

Comparison to norms
Norms are provided within the narrative of the Leadership Style Profile; however, a manager's data are not directly compared to these norms. The authors (Zigarmi & Zigarmi, 1991) state that 50% of the managers in their database (148 managers, 662 observers, 68% males, 31% females from a high-tech computer company) had only 1 style from their observers' perspective, 30% had 2 styles, and 19% had 3 styles. Only 1% of managers were reported to have flexibility in using all 4 leadership styles.

Perceptions of Leadership Style
Percentage Data

Percentages are obtained by dividing the total number of responses in each quadrant by the total number of possible answers. The total number of possible answers is obtained by multiplying the number of people rating the leader times 20.

BOSS'S PERCEPTIONS

Supportive Behavior

% S3	% S2
% S4	% S1

Directive Behavior

SELF PERCEPTION

Supportive Behavior

% S3	% S2
% S4	% S1

Directive Behavior

ASSOCIATES' PERCEPTIONS

Supportive Behavior

% S3	% S2
% S4	% S1

Directive Behavior

Number of Associates Rating Leader ☐

TEAM MEMBERS' PERCEPTIONS

Supportive Behavior

% S3	% S2
% S4	% S1

Directive Behavior

Number of Team Members Rating Leader ☐

Highlighting largest self/rater discrepancies
While the graphic portion of the feedback report does not highlight those scores that are significantly different, the report indicates that differences of more than 13% represent dissimilarities.

Item-level feedback
Item responses from all team members (or direct reports) are provided in the feedback.

Comparison to ideal
Excellent and good choices of leadership style in each situation are highlighted by an asterisk (*) or a shaded triangle, respectively. Poor and fair responses within the feedback are left blank.

Leadership-style Effectiveness scores reflect the managers' situational leadership abilities and similarity to the ideal leader. Style Effectiveness scores are plotted on a colored vertical bar graph ranging from 20 to 80 points. Higher points on the graph (more effective) have a darker shade, reflecting better scores.

SUPPORT AND DEVELOPMENTAL MATERIALS

Support for Participant

Development and planning guide
The Leadership Style Profile sheet summarizes and contrasts participants' perceptions with those of others. More specifically, the summary sheet gives managers feedback on whether there is a match or mismatch between the manager's perception of his or her leadership style and the perceptions of others. It also provides managers with data on their flexibility as a leader and whether they are good at diagnosing people's need for direction and support.

Post-assessment
The LBAII has an additional form solely for the purpose of post-assessment.

Vendor hotline
The authors provide a toll-free phone number participants can call for interpretive assistance.

Summary worksheets
Worksheets are provided in the development and planning guide.

Support for Trainer

Trainers' guide/manual
Blanchard Training and Development, Inc., provides workshop participants with a facilitators' guide that contains step-by-step guidelines for administering and giving feedback on the LBAII. They also provide information on how The Johari Window can be used as a framework to open up communication in individual consultation or in group settings.

Workshop
Blanchard Training and Development, Inc., offers a training workshop on the LBAII.

Supplemental norms
Additional norms are provided in Zigarmi et al. (1993).

Video
A video is available through Blanchard Training and Development, Inc.

Supplemental materials from the vendor
Research on the LBAII: A Validity and Reliability Study (Zigarmi et al., 1993) is a 155-page report that provides an overview of LBAII research and details on the instrument's validity and reliability. Over 40 tables of research findings are provided along with a description of related studies.

Certification Requirement

Blanchard Training and Development, Inc., recommends that persons administering and providing feedback attend a workshop. Certification is not required to purchase the instrument.

Scoring Process

The self form of the LBAII is primarily hand-scored.

If an organization is conducting the training and administration, Blanchard Training and Development, Inc., recommends that the organization score the instrument and complete the Leadership Style Profile forms. Otherwise, the instruments can be returned to the vendor for scoring. Additionally, a computer scoring program can be purchased from the vendor.

Turnaround time for vendor scoring varies according to client needs. The LBAII can be scored and returned in from 1 to 7 days.

OTHER CONSIDERATIONS

Cost

Given below are the prices for each of the following: the LBAII self form, the LBAII other form, the LBAII-B (a post-training analysis) self form, the LBAII-B other form, scoring of 1 form, and the Leadership Style Profile sheet:

Quantity	Price (ea.)
1-24	$2.95
25-99	$2.80
100-249	$2.65
250-499	$2.45
500+	$2.05

An LBAII Profile Package is available. Each package includes: 1 self form, 8 other forms, 1 Leadership Style Profile sheet, and scoring instructions.

	Quantity	Price (ea.)
	1-24	$29.50
	25-99	$28.00
	100+	$26.50
LBAII with scoring service	1-24	$49.50
	25-99	$47.00
	100+	$45.00

The Facilitators' Guide is $295.

Length of Instrument

The self and other forms consist of 20 leadership situations, which can be completed in approximately 20 minutes.

LBAII Bibliography

Hambleton, R. K. (1982). The validity of Hersey and Blanchard's theory of leader effectiveness. *Group & Organizational Studies, 7*, 225-242.

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Wilson, C. L. (1981). *Survey of Management Practices (form SMP-SE).* New Canaan, CT: Clark Wilson Publishing.

Zigarmi, D., Edeburn, C., & Blanchard, K. (1993). *Research on the LBAII: A validity and reliability study.* Escondido, CA: Blanchard Training and Development.

Zigarmi, P., & Zigarmi, D. (1991). *Leadership style profile.* Escondido, CA: Blanchard Training and Development.

THE VISIONARY LEADER: LEADER BEHAVIOR QUESTIONNAIRE (LBQ)

Vendor: Human Resource Development Press
22 Amherst Road
Amherst, MA 01002
(800) 822-2801

Author: Marshall Sashkin, Ph.D.
U.S. Program on Human Resource Development
Graduate School of Education
The George Washington University
Washington, DC 20042
(202) 994-8649

Copyright Dates: 1984, 1985, 1988, 1996

Statement of Purpose

The Visionary Leader: Leader Behavior Questionnaire (LBQ) is designed to assist managers in learning about their performance as leaders. "By responding to the LBQ you will have the opportunity to discover some valuable information about your personal approach to the leadership process and how it contributes to the general level of excellence of your organization" (Sashkin, 1988c, p. 1).

A fourth version of the LBQ, The Leadership Profile (TLP), is also available through Human Resource Development Press (HRDP). Both the LBQ and the TLP assess 3 areas of visionary leadership: personal capabilities, behavioral skills, and culture building. The TLP instrument, however, includes 2 scales designed to assess transactional leadership or management.

Target Audience

The LBQ is targeted for middle- to upper-level managers. The instrument is not recommended for first-line supervisors.

Feedback Scales

The LBQ has 10 scales; 5 items comprise each scale.

Focused Leadership

The ability to manage one's attention and to direct the attention of others. Sample item: [I] pay close attention to what others say when we are talking.

Communication Leadership

The ability to get the meaning of a message across; attention to and appreciation for feelings, both one's own and others'. Sample item: [I] do not communicate very clearly.

Trust Leadership

Showing that one is steady or reliable and can therefore be trusted to do what one promises. Sample item: [I] am extremely dependable.

Respectful Leadership

The leader's sense of how he or she fits into the organization, both now and in the future. Sample item: [I] show that I really care about other people.

Risk Leadership

Taking risks that concern implementing parts of their visions; designing risks so that others can participate. Sample item: [I] worry a lot about the possibility of failing.

Bottom-line Leadership

The belief that the leader can personally make a difference and have an impact on people, events, and organizational achievements. Sample item: [I] believe that what I do as a manager is important because of the impact of my actions on people's behavior and on achieving organizational aims.

Empowered Leadership

Using power to empower others, who can then use their power and influence to carry out elements of the leader's vision. Sample item: [I] find that some of the most significant aspects of my position are the little "perks" that demonstrate my importance to the organization and its members.

Long-term Leadership

Leader's ability to think clearly over relatively long spans of time. Sample item: [I] often consider how a specific action plan I've developed might be extended to benefit my entire organizational unit.

Organizational Leadership

The ability of the leader to have a positive impact when dealing with change, achieving goals, coordinating the activities of organizational members, and maintaining the system. Sample item: [I] generally have not been able to help the organization attain its goals.

Cultural Leadership
The extent to which the leader is able to develop or inculcate those values that will strengthen organizational functioning. Sample item: [I] encourage people to support their views and positions with concrete evidence.

The first 5 scales are designed to measure specific leadership behaviors. The next 3 scales assess personal characteristics, and the final 2 scales are designed to indicate the extent to which one is building a positive organizational culture. These 3 sets of scales produce scores on Visionary Leadership Behavior, Visionary Leadership Characteristics, and Visionary Culture Building, respectively.

Response Scale

Respondents rate how characteristic each item is, using a 5-point scale where:

C = Completely true
M = Mostly true
S = Somewhat true
L = A little true
N = Not at all true

INSTRUMENT DEVELOPMENT

Origin of Items: Theory/Experience

The LBQ was first developed (Sashkin, 1984) as a 24-item research/training tool, based on the work of Warren Bennis (1984). As research revealed new dimensions and concepts of leadership, the instrument was adapted to meet trainer and client needs. Although Bennis's measures of visionary leadership behaviors remain a critical component of the LBQ, 2 other components have been added. One consists of personal characteristics of effective visionary leaders, and the other deals with the way visionary leaders directly affect organizational cultures.

The items making up scales 1 through 5 are based on Bennis's (1984; Bennis & Nanus, 1985) work on visionary leadership behavior. According to Bennis, exceptional CEOs do the following: focus on key points and concepts in interpersonal discussions; generally possess a high level of basic communication skills; act with consistency such that others place trust in them; frequently express respect and personal concern; create and take risks by constructing opportunities for others to buy in to the leader's ideas and programs; and take an active, ownership role in making their vision real.

Items in scales 6 through 8 represent personal characteristics: assessing impact belief (the belief that one can make a difference), power need (the need for power and influence), and cognitive time span (time span of vision).

Bottom-line Leadership (scale 6): This scale reflects the view that one can control or affect one's environment. The idea that effective leaders start with a strong belief in themselves and their ability to affect their organizational environment (Sashkin, 1988c) is based on work by House (1977), House and Baetz (1979), and Stogdill (1948).

Empowered Leadership (scale 7): This scale reflects the belief that effective leaders have a high need for power. Such leaders direct their need for power in socially positive ways; that is, in ways that benefit others and the organization rather than merely contributing to their own personal status. "Effective leaders use power to empower others, who then use power and influence to enact the leader's vision of the organization" (Sashkin, 1988c). The foregoing theory is based upon work by House, Woyeke, and Fodor (1988), Howell (1988), McClelland (1975), McClelland and Burnham (1976), and Winter (1987).

Long-term Leadership (scale 8): This scale has its origins in a theory by Jaques (1979) that suggests that effective organizational leaders, at the top levels of an organization, have (and must have) relatively high levels of "cognitive development," reflected in their long-term time horizon, or "vision." Sashkin (1988c) states, "Authentic visionary leaders can develop realistic vision covering decades for large organizations."

Items on the culture-building scales (9 and 10) concern the manner in which the leader deals with and affects the organization.

Organizational Leadership (scale 9): This scale reflects the view, as stated by Parsons (1960), that organizations must: (1) adapt to external change, (2) achieve goals relevant to customer desires, (3) maintain teamwork and coordination internally, and (4) create and maintain a system of shared values and beliefs. The LBQ items that make up scale 9 address the extent to which the leader is able to have a direct, positive effect on the operation of these 4 organizational functions (Sashkin, 1988c).

Cultural Leadership (scale 10): This scale reflects the idea, as stated by Schein (1985), that an important function of organizational leaders is building or changing the organization's culture. He suggests that the creation and inculcation of certain specific values and beliefs support effective operation of the 4 functions referred to above. Scale 10 examines whether the leader has developed in his or her organization the sort of values and beliefs suggested (Peters & Waterman, 1982; Sashkin & Fulmer, 1987; Schein, 1985) as the foundation of organizational cultures that create and support excellence.

Item Development

On each 5-item scale, 2 items are negatively worded, while 3 are positively worded to help reduce social desirability bias.

Development of Feedback Scales

Results from a factor analysis of data from approximately 600 raters produced 8 factors (Sashkin, 1990). The first factor combined personal characteristics (scales 6 to 8) and culture building (scales 9 and 10) with the risk-taking behavior (scale 5). The second factor consisted of items from the effectiveness and power scales (scales 6 and 7). The third factor contained items from the focus, communication, trust, and respect scales (scales 1, 2, 3, and 4). The fourth factor also included items from the focus and communication scales. The fifth factor contained items from the trust scale. The remaining factors were found to be an assortment of items with little explanatory power.

Results from another factor analysis of 500 self scores revealed 14 factors, 8 of which were meaningful. The first factor contained items from scale 8, Long-term Leadership. Factors 2 and 5 contained items representing communication and respect behaviors (scales 2 and 4). Factor 3 contained items from the communication scale, and factor 4 contained items from the empowerment scale. Factor 6 contained trust items similar to the rater results described above.

Factor 7 contained 1 item from each area (behavior, personal characteristics, and culture-building) and is uninterpretable. Factors 8 and 9 contained items that pertain to the self-efficacy scale (scale 6).

Item-scale correlations were also used in the development of the LBQ scales.

Reliability

Test-retest
Currently, no data are available.

Internal consistency
An analysis of more than 100 raters of managers in a manufacturing organization (Stoner-Zemel, 1988) showed Cronbach's alphas ranging from .52 (Focused Leadership) to .75 (Trust Leadership) for the first 6 scales.

Sashkin (1990) reported higher alphas for a sample of 31 raters. The alpha for Focused Leadership, for example, was .83. Results for scales 6 through 10 are .68 (Bottom-line Leadership), .33 (Empowered Leadership), .77 (Long-term Leadership), .88 (Organizational

Leadership), and .31 (Cultural Leadership). According to Sashkin (1990), low scores for Empowered Leadership and Cultural Leadership scales are the result of items that measure multiple dimensions. For example, the Empowered Leadership scale is composed of 2 dimensions: an overall need for power and the need to exert power. Similarly, the Cultural Leadership scale reportedly measures 4 different facets associated with organizational culture.

Interrater

Currently, no data are available. Sashkin argues that the ratings of 2 to 3 respondents per manager that are typically collected with the LBQ do not provide enough data to calculate interrater reliability.

Validity

The following 3 studies were conducted on a previous edition of the LBQ, and thus examine only the first 5 behavior scales.

Ray (1989) obtained LBQ data from about 200 employees of 2 manufacturing plants, along with a measure of "organizational excellence" culture (Sashkin, 1984; Sashkin & Fulmer, 1985). Analyses of the data showed that culture scores on the Organizational Beliefs Questionnaire (Sashkin, 1984) were significantly related to LBQ scores. Moreover, 1 plant was significantly higher than the other with respect to culture scores and was similarly significantly higher with respect to the LBQ (see Sashkin & Burke, 1990).

In 1988, Stoner-Zemel compared the LBQ-other and the LBA (a situational leadership questionnaire developed by Blanchard) to her Quality of Work-life Assessment Questionnaire. She found that both the LBQ and the LBA were significantly correlated with employees' perceptions of the quality of work life. The LBQ, however, better differentiated between groups high and low in such perceptions than did the LBA (see Sashkin & Burke, 1990).

Major (1988) administered the LBQ to principals of 30 high-performing high schools and 30 low-performing high schools in Southern California. He found a significant difference, with principals of the high-performing high schools scoring substantially higher than principals of low-performing high schools. Thus, the leaders' LBQ scores were associated with bottom-line organizational performance in public high schools.

Research examining the validity of the current version of the LBQ is summarized below:

A study of 13 schools (Sashkin & Sashkin, 1990) showed that culture-building activities (assessed by the Organizational Leadership and Cultural Leadership scales) were significantly rélated to independent measures of cultural strength and adaptability.

A study of school districts (Endeman, 1990) showed that superintendents with high LBQ scores felt that they had developed school districts that had strong, adaptable cultures, and which were team- and achievement-oriented. Superintendents with lower LBQ scores did not feel they had done as well in these areas.

Additional studies are listed in the bibliography below.

A Caution Statement on Misinterpretations

The LBQ is intended to be used for developmental purposes only. It should not be used for performance appraisal, selection, or any other actions not related to its stated purpose.

International Use

Translations
The LBQ has been translated into Swedish.

CHARACTERISTICS OF FEEDBACK

Type of Feedback Display: PLOT

The cumulative behavior, personal characteristics, and culture-building scores are graphically plotted and connected to form a triangular pattern. Generally, the larger the triangle, the stronger the overall leadership pattern. Sashkin reports that it is rare for anyone to score high or low across all the scales (Sashkin, 1988c).

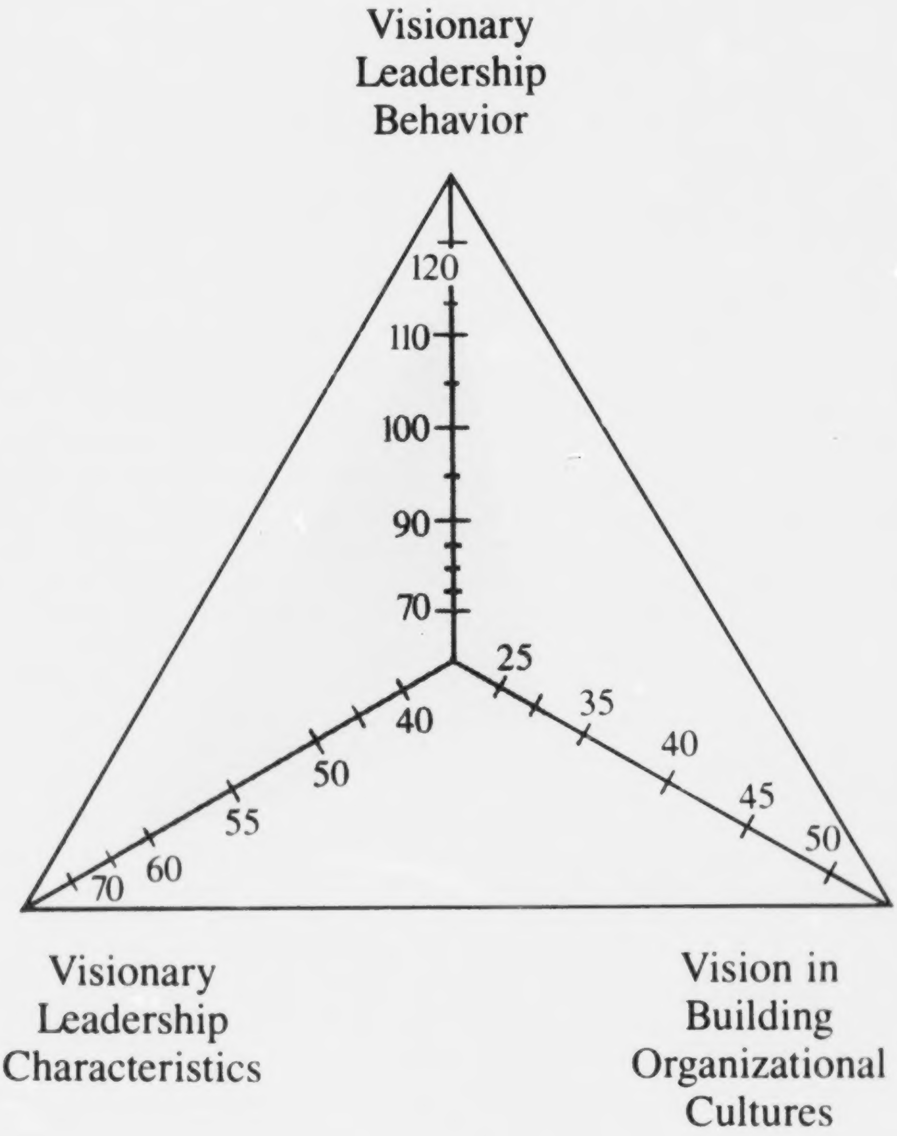
A graph in the form of a mountain peak is provided so that participants may plot their total score as an ascent up the mountain.

Breakout of Rater Responses

All rater data are combined into a single others category.

Feedback Delivery Strategies

Comparison to norms
Participants plot their Visionary Leadership Behavior score, Visionary Leadership Characteristics score, Visionary Culture Building score, and Visionary Leadership Total score against norms. The norms were developed using data from 715 managers and professionals from diverse organizations.


Visionary
Leadership
Behavior
Visionary
Leadership
Characteristics
Vision in
Building
Organizational
Cultures

Sashkin (1990) reports that normative data show very little difference between self-ratings and ratings by others.

Comparison to ideal
Participants compare their self and other triangular patterns to 9 profiles, 1 of which is the "ideal" leader. Other profiles include: (1) The Charismatic Individual, (2) The Visionary Thinker, (3) The Organizational Thinker, (4) The Visionary Charismatic, (5) The Organizational Architect, (6) The Organizational Planner, (7) The Underdeveloped Leader, (8) The Aspiring Leader, and (9) The Self-actualized Leader.

SUPPORT AND DEVELOPMENTAL MATERIALS

Support for Participant

Development and planning guide
Becoming a Visionary Leader (Sashkin, 1988a) provides a further introduction to visionary leadership and its development. Included are 2 short surveys—*Impact Focus Scale* and *Cultural Functions Inventory*—aimed at assessing, in more detail, how leaders use power and how they affect the 4 organizational functions and the values that support them. Several exercises assessing one's vision are also included in the guide.

Support for Trainer

Trainers' guide/manual
The Visionary Leader Trainer Guide (Sashkin, 1990) contains: (1) background information on the LBQ; (2) technical information about the instrument; (3) information on the scores, scales, and items; (4) uses of the LBQ in training and development; and (5) normative data for over 20 different managerial samples. In the section on training and development, 2 training-session design outlines are provided. One is for a half-day (3- to 4-hour) session, the other for a full-day (6- to 8-hour) training session. Guides for individual and group discussion are available.

Supplemental norms
Norms from past LBQ users are available; these can be used for individual or group comparison but are not part of the participant's feedback.

An extensive list of the normative data is provided in *The Visionary Leader Trainer Guide* (Sashkin, 1990). Most of the norms include the standard deviation for each scale. Sashkin suggests that the trainer select relevant normative samples and prepare a group-norms chart to share with participants.

Supplemental materials from the vendor
Outline suggestions for a workshop and overhead transparencies are available from the vendor.

Certification Required

No certification is required.

Scoring Process

The LBQ is self-scored. For the self form, a pressure-sensitive response form is used to generate scale and summary scores. When a letter is circled on the response form, a number appears on the scoring form. Scores for each scale are derived by adding the circled numbers in each column. The LBQ-other forms are scored in a similar manner.

OTHER CONSIDERATIONS

Cost

Quantity	Price (ea.)
1 self	$7.95
100+ self	$7.55
1-99 other	$2.95
100-299 other	$2.80
300-599 other	$2.65
600+ other	$2.50
1 set	$9.95
100 sets	$9.45

A set includes 1 self and 3 other forms.

Length of Instrument

The LBQ consists of 50 questions. The instrument can be completed in approximately 10 to 20 minutes.

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LEADERSHIP EFFECTIVENESS ANALYSIS (LEA)

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Copyright Dates: 1987, 1993

Statement of Purpose

The Leadership Effectiveness Analysis (LEA) is designed to provide information to a manager/leader on how self-perceptions of his or her management/leadership practices, perspectives, and behavior compare with those of significant stakeholders and the expectations of the organization. Modification of behavior through changes in critical leadership/management "traits" help bring the manager to higher levels of effectiveness as perceived by these stakeholders.

Target Audience

The LEA was designed to be used with managers and technical professionals at all levels within an organization. A ninth-grade reading level is required.

Feedback Scales

The LEA provides feedback on 22 sets of leadership behavior grouped into 6 functional areas.

CREATING A VISION

Conservative
Studying problems in light of past practices to ensure predictability, reinforce the status quo, and minimize risk. Sample item: In peers, I like to see a respect for time-tested values.

Innovative
Feeling comfortable in fast-changing environments; being willing to take risks and to consider new and untested approaches. Sample item: In my organization, I like to be surrounded by innovative thinkers.

Technical
Acquiring and maintaining in-depth knowledge in your field or area of focus; using your expertise and specialized knowledge to study issues and draw conclusions. Sample item: When I am part of an organization, I apply the best knowledge of my field.

Self
Emphasizing the importance of making decisions independently; looking to yourself as the prime vehicle for decision making. Sample item: When I approach a problem, I do it on my own.

Strategic
Taking a long-range, broad approach to problem solving and decision making through objective analysis, thinking ahead, and planning. Sample item: I model myself after people who think ahead.

DEVELOPING FOLLOWERSHIP

Persuasive
Building commitment by convincing others and winning them over to your point of view. Sample item: Peers probably regard me as able to sway people's opinions.

Outgoing
Acting in an extroverted, friendly, and informal manner; showing a capacity to quickly establish free and easy interpersonal relationships. Sample item: I do best with tasks that require an easy and informal way with people.

Excitement
Operating with a good deal of energy, intensity, and emotional expression; having a capacity to keep others enthusiastic and involved. Sample item: Peers see me as lively and dynamic.

Restraint
Maintaining a low-key, understated, and quiet interpersonal demeanor by working to control your emotional expression. Sample item: In an emergency, I remain calm.

IMPLEMENTING THE VISION

Structuring
Adopting a systematic and organized approach; preferring to work in a precise, methodical manner; developing and utilizing guidelines and procedures. Sample item: In a leadership role, I would ensure that things are well organized.

Tactical

Emphasizing the production of immediate results by focusing on short-range, hands-on, practical strategies. Sample item: As a leader, I would try to give everyone concrete, practical goals.

Communication

Stating clearly what you want and expect from others; clearly expressing your thoughts and ideas; maintaining a precise and constant flow of information. Sample item: When I have set an objective, I explain it thoroughly.

Delegation

Enlisting the talents of others to help meet objectives by giving them important activities and sufficient autonomy to exercise their own judgment. Sample item: When I am in charge, I allow people freedom to make mistakes.

FOLLOWING THROUGH

Control

Adopting an approach in which you take nothing for granted, set deadlines for certain actions, and are persistent in monitoring the progress of activities to ensure that they are completed on schedule. Sample item: When I ask people to do something really important, I follow it up at the right time.

Feedback

Letting others know in a straightforward manner what you think of them, how well they have performed, and if they have met your needs and expectations. Sample item: Others are likely to notice that I let people know what I think of them.

ACHIEVING RESULTS

Management Focus

Seeking to exert influence by being in positions of authority, taking charge, and leading and directing the efforts of others. Sample item: In difficult situations, people notice my willingness to take command.

Dominant

Pushing vigorously to achieve results through an approach that is forceful, assertive, and competitive. Sample item: I believe in being highly competitive.

Production

Adopting a strong orientation toward achievement; holding high expectations for yourself and others; pushing yourself and others to achieve at high levels. Sample item: In my organization, I like to be surrounded by hard-driving achievers.

TEAM PLAYING

Cooperation

Accommodating the needs and interests of others by being willing to defer performance on your own objectives in order to assist colleagues with theirs. Sample item: In an emergency, I am quite willing to help.

Consensual

Valuing the ideas and opinions of others and collecting their input as part of your decision-making process. Sample item: I am a person who gets ideas from others.

Authority

Respecting the ideas and opinions of people in authority and using them as resources for information, direction, and decisions. Sample item: Peers probably regard me as willing to support my superiors.

Empathy

Demonstrating an active concern for people and their needs by forming close and supportive relationships with others. Sample item: In my organization, I am known for my concern for the welfare of others.

Response Scales

The response scales utilize a modified normative/ipsative, forced-choice format. Each question consists of an introductory phrase and 3 alternative items that complete it. The respondent first chooses the item that seems MOST characteristic of him or her and rates it either "5" or "4." Then the respondent decides among the remaining items which is NEXT closest to describing him or her, and rates this choice either "3" or "2." The respondent is instructed to leave the third item blank, and this item is scored as representing him or her the least. This format reveals not only the order of the respondent's preference among the 3 variables offered in each question, but also the strength of his or her preference for each variable. Over the course of the questionnaire, each variable is compared to all 21 of the other variables being measured.

MOST
5 = Especially characteristic of you
4 = Most like you, but you do not feel strongly about it

NEXT
3 = A reasonably accurate description
2 = Only the better of 2 less appealing choices

INSTRUMENT DEVELOPMENT

Origin of Items: Theory/Research

The Leadership Effectiveness Analysis was constructed by observing leaders and attempting to identify those behaviors and practices that tended to lead to success over a wide range of leadership challenges (Kabacoff, 1998). The LEA is based on the assumption that role incumbents will behave differently depending upon the situation or challenge. Situational challenges include: (1) the level of the role within the organization; (2) the function within which the role is placed; (3) the philosophy or climate of the organization; (4) specific stakeholder characteristics—types of direct reports, peers, customers, etc.; and (5) the nature of the task. The LEA assesses leadership "sets," which are the theoretical foundation of the tool. Leadership sets indicate the likelihood of the leader to behave in consistent ways across a broad range of leadership challenges. The inclination to utilize certain practices will be affected for any given situation by the following factors: (1) the experience of the leader in using specific practices; (2) the level of skills that support the various leadership practices within the set; (3) the culture and values of the organization in which the leader is operating; (4) the nature of the leader's motivation—a particular set will generally result in certain types of gratification that another will not; and (5) the total leadership challenge—organization and task demands, competitive situation, strategic considerations, etc. The ideal leader would be one who had developed him- or herself across the entire range of leadership sets, was a perfect diagnostician in terms of the assumptions underlying the utilization of the sets, and had a philosophy and range of skills that were adaptable across the entire range (Kabacoff, 1998).

Development of Feedback Scales

A group of psychologists and senior organization consultants at 2 consulting firms identified 35 variables that were systematically reduced to 22 variables as a result of agreement among the assessors about redundancy, conceptual precision, and utility.

Scales were selected based on their independence (Pearson correlations from a sample of 1,890 subjects from a large variety of settings—public and private, large and small organizations, hierarchical and nonhierarchical). Items on the scales were selected based on their correlation to the total target scale (in the range of .30 to .60) and independence from other scales. In addition, items were selected because they had a probability of response in a heterogeneous manager/professional sample of at least .20 and not more than .50.

Reliability

Test-retest

Two separate test-retest studies have been conducted to assess the reliability of the LEA Self

Diagnostic Questionnaire. In October 1991, the LEA Self questionnaire was administered twice to a sample of 44 people. A 14-day inter-trial interval separated the first and second test administrations. The individuals were not provided with feedback until both administrations were completed. The 2-week time period was believed to be long enough to minimize memory effects and short enough to reduce the likelihood of real changes in the subjects. In November 1997, the study was repeated with a different sample of 35 people. Again, a 2-week inter-trial interval was selected.

In order to test for consistency and stability in scores from the first to the second administration, Pearson Product-Moment Correlations were calculated for each of the 22 variables measured by the questionnaire. Correlations were calculated separately for each study, and the results were then combined. In the first study, scale test-retest reliability coefficients range from .63 (Consensual) to .90 (Strategic). The average test-retest reliability coefficient was .77. In the second study, scale test-retest reliability coefficients range from .53 (Consensual) to .91 (Structuring). The average test-retest reliability coefficient was .80. Finally, the combined results produced test-retest reliability coefficients ranging from .59 (Consensual) to .86 (Management Focus, Excitement), with an average test-retest coefficient of .78. These are not corrected for attenuation (Kabacoff, 1998).

Internal consistency
Because of the nature of the format employed (semi-ipsative) in the LEA questionnaires, internal consistency measures are not appropriate (Mahoney & Mahoney, 1996).

Interrater
Extensive interrater reliability studies of the LEA Observer Questionnaire were completed in the Winter of 1997 using the ratings of 1,068 bosses, 2,592 peers, and 2,544 direct reports. Cases were drawn from existing Management Research Group (MRG) databases and represent a wide range of companies, management levels, business functions, and geographic locations. Intraclass correlation coefficients were used to assess interrater reliability. For boss ratings, mean interrater reliabilities ranged from .58 for 2 raters to .80 for 4 raters; for peer ratings, mean interrater reliabilities ranged from .67 for 4 raters to .80 for 8 raters; for direct report ratings, mean interrater reliabilities ranged from .66 for 4 raters to .79 for 8 raters (Kabacoff, 1998).

Additional Forms of the LEA Questionnaire

In addition to the LEA Self Diagnostic Questionnaire, MRG has developed the following forms of the LEA. All forms measure the same 22 leadership "sets." All are used to provide feedback, at the individual and organizational level, through a number of feedback delivery systems that are grouped together as *Strategic Leadership Development (SLD)*.

LEA Observer Questionnaire
Designed to be completed by an individual's boss, peers, and direct reports and used to provide developmental, 360-degree feedback to the individual.

LEA Strategic Directions Questionnaire
Questions focus on the leadership behaviors an organization will need in the future. Designed to be completed by middle- and upper-level management teams. Provides feedback for a facilitated session in which the management team identifies the critical leadership practices the organization will need its leaders to demonstrate in order to achieve its business goals and objectives.

LEA Role Expectations Questionnaire
Questions focus on the leadership behavior that would be demonstrated by the ideal incumbent in a specific leadership role. Provides feedback that can be used in a number of applications, such as defining leadership expectations for new or existing roles, or identifying differing performance expectations held by an individual and his or her boss.

Validity

At least 5 studies have been conducted examining the construct and predictive validity of the LEA questionnaires. Each study is described in detail in Kabacoff (1998) and briefly outlined here.

In a study of 24,454 individuals completing the LEA Self Diagnostic Questionnaire, test responses reliably differentiated among individuals representing 7 organizational levels and 9 job functions. In each case, differences between groups were highly interpretable and in expected directions. In examining the effect of organizational level, it was found that as one moves upward in management rank (i.e., from supervisor/foreman, to department head/unit manager, to division head/VP, to senior or executive VP, to president/CEO), one tends to demonstrate greater Management Focus, Persuasive, Delegation, and Production. At the same time, one tends to demonstrate less Cooperation, Structuring, and Technical. The supervisor/foreman and administrative/clerical groups tend to have higher Authority scores and lower Strategic and Self scores than the other groups. Conversely, the professional/technical group tends to have higher scores on Strategic and Self and lower scores on Authority when compared with other groups. In examining the effect of job function, it was found that job functions fall roughly into 4 clusters based on LEA self scores. Administration/operations, customer service, manufacturing, and distribution/fulfillment form 1 cluster; accounting/finance, data processing/systems, and technical/engineering/research form a second cluster. The 2 other clusters consist of marketing/sales and HR/personnel. Clear and interpretable differences can be seen among these clusters. The marketing/sales group tended to be much higher on the Persuasive and Excitement sets and lower on the Structuring set than any of the other groups. The HR/personnel group tended to be much higher on the Empathy and Outgoing sets and lower on the Dominant set than any of the other groups. The accounting/finance-data processing/systems-technical/engineering/research cluster tended to be higher on Structuring and lower on Persuasive and Excitement than other groups. The customer service group tended to have higher Empathy and Outgoing scores and lower Dominant and Structuring scores than all other groups except HR/personnel.

A multitrait-multimethod (MTMM) matrix was used to assess the construct validity of the LEA Self Diagnostic Questionnaire and the LEA Observer Questionnaire in a sample of 124,158 individuals. Rater groups (self, boss, peer, direct report) represented the methods and the 22 LEA leadership sets represented the traits. An examination of the correlations among the traits measured by several methods provides information about the convergent and discriminant validity of the measurement process. The pattern of correlations in the MTMM matrix strongly supported the construct validity of the instruments.

Relationships between the LEA Self Diagnostic Questionnaire and other assessment instruments (Sixteen Personality Factors Questionnaire [16PF], California Personality Inventory [CPI], Myers-Briggs Type Indicator® [MBTI], Wesman Personnel Classification Test [WPCT], Individual Directions Inventory [IDI]) were investigated in a sample of 464 individuals completing 2 or more tests as part of selection or development processes. In the design of the LEA, leadership sets were not defined as personality variables. Personality features can, however, affect the selection and use of leadership sets. Therefore, small to moderate correlations between various LEA sets and personality indicators were expected. In addition, it was expected that leadership sets would be relatively independent of cognitive abilities. Therefore, zero or very small correlations between LEA sets and cognitive variables were expected. As anticipated, moderate correlations at or above the .30 level in absolute magnitude were found between 17 of the 22 LEA sets and various personality variables on the 16PF, CPI, MBTI, and IDI. The highest correlation was found between LEA Innovative and IDI Creating (+.67). In each case, these correlations were interpretable and lend support to the construct validity of the LEA. In addition, no significant correlations were found between any LEA set and either Verbal or Numerical ability subtests on the WPCT. Since we expect leadership sets to be relatively independent of cognitive abilities, this finding also lends support to the construct validity of the LEA instrument.

The predictive validity of the LEA Self Diagnostic Questionnaire was assessed in a sample of 6,146 individuals undergoing 360-degree-feedback processes. Individuals completed the LEA Self Questionnaire and were rated by a median of 9 observers (1 boss, 4 peers, 4 direct reports) who had completed Part B of the LEA Observer Questionnaire, which consists of 20 Likert scale items assessing various aspects of leadership effectiveness. The predicted variables in this study were scales developed from the items found in Part B of the LEA Observer Questionnaire. For bosses, these scales were Overall Effectiveness, Business Smarts, Interpersonal Sensitivity, and People Management Skills. For peers and direct reports, these scales were Overall Effectiveness, Business Smarts, and People Skills. Each of the 22 LEA scales were found to be significantly and meaningfully related to observer ratings of effectiveness, providing strong evidence of predictive validity for the LEA Self Diagnostic Questionnaire.

A major tool used in the Strategic Leadership Development program is called Strategic Directions. LEA Strategic Directions Questionnaires are distributed to senior-level people prior to a Leadership 360° feedback program. The raters are asked to rate the 22 sets according to their perceived importance to reaching crucial organizational goals over the next 3 years. The top-rated 6 to 9 LEA sets are then used to help managers set priorities for their own development. A technique combining scores derived from degree of similarity between managers' ratings by outside observer groups (boss, peers, direct reports) and the critical LEA Strategic Directions sets is called Gap Analysis. The validity of the LEA Strategic Directions process was investigated in a sample of 8 public- and private-sector companies (*N*=363). Findings suggest that leaders demonstrating leadership practices that were congruent with those identified as vital for company success by upper-level management tended to be perceived as more effective by their bosses, peers, and direct reports. This was the case even though peers and direct reports had no hand in establishing the LEA Strategic Directions sets. In 1 organization where confirmation was available, gap analysis scores predicted sales volume for managers' offices *the following year*. These results provide support for the potential value of focusing training and development around multi-rater feedback that is specific to individuals and simultaneously applicable to the organization's broader objectives.

Other Studies

A factor analysis of the LEA and 16PF was reported in Croom, Mahoney, and Mahoney (1995). In a sample of 574 managers and executives, 7 clearly interpretable factors emerged, accounting for 60% of the variance among scales.

An extension of LEA methodology was reported by Beach, Lomac, and Meyers (1997), which demonstrated the effect of concentrating on the development of critical sets to performance in a large sales administrative company. This and several other reports have suggested that the behavior representing LEA sets may be changed.

Significant differences were reported among sales managers differentiated on the basis of LEA sets with sales volumes, turnover, and administrative expenses (Mahoney & Beach, 1995).

An elaboration of the normative/ipsative techniques used by various MRG instruments was reported by Mahoney and Mahoney (1996). This was specifically targeted to placing this technique in context of the normative/ipsative debate that continues to engage psychometricians. The operating characteristics of the questionnaire tend to place the LEA more toward the normative than the ipsative pole. The distributions are normal, the variance of scales is substantially greater than ipsative scales, and the many demonstrations of validity are inconsistent with assumed characteristics of ipsative scales.

A Caution Statement on Misinterpretations

The LEA was designed as a role-based instrument for the prediction of certain classes of management/leadership behavior and attitudes. As such, it may be used for:

- individual manager/leader development
- selection of managers and leaders with adequate research and safeguards
- diagnosis of group management/leadership practices
- as an adjunct in team development
- in conjunction with the LEA Strategic Directions questionnaire and process, as the basis for comparing present manager/leader practices to an ideal template of the individual's orientation.

The LEA was not designed to be used as a:

- measure of personality
- basis for termination
- direct measure of manager/leader performance.

The LEA in its 360-degree-feedback version may, under certain controlled circumstances, be used as an aid in assessing management practices in performance management programs where the aim is to help individuals strengthen various aspects of management/leadership behavior. This usage, however, should be supplemented with other measures that are more specific to performance issues.

International Use

Translations
LEA questionnaires and feedback materials are available in the following languages: Danish, Dutch, English (American and British), French, German, Italian, Norwegian, Spanish, and Swedish.

International norms
North America (General Business Population, U.S. and Canada)
United Kingdom (General Business Population)
United Kingdom (Executives)
Europe (General Business Population)

Additional country-specific norms currently under development: Australia, Belgium, Denmark, France, Latin America, Germany, Hong Kong, Italy, Malaysia, Netherlands, Norway, Singapore, South Africa, and Sweden.

Internationally tested for validity/reliability
Content validity is tested on an ongoing basis for every language translation of each LEA

instrument (self, observer, Strategic Directions, and Role Expectations) using a variety of statistical methods. Scale items are replaced if their correlation to the total target scale does not fall within the range of .30 to .60. Pearson Product-Moment Correlations are calculated to test the independence of the scales.

CHARACTERISTICS OF FEEDBACK

Feedback Delivery Systems Available

The LEA instruments are used to provide feedback at the individual and organizational level through a variety of feedback delivery systems, grouped together as *Strategic Leadership Development (SLD)*:

Strategic Directions
A facilitated session in which a senior-level management team identifies the leadership behaviors critical to the overall organization. Participants receive a package containing feedback from their responses to the LEA Strategic Directions questionnaire (a printout showing the median and frequency distribution of the group's scores), a Resource Guide providing interpretive information on the benefits and risks inherent in each of the 22 LEA leadership sets as well as the supporting conditions necessary to develop each, and a Process Guide with worksheets and group exercises.

Leadership 360®
A report that provides an individual with feedback on his or her day-to-day leadership behavior based on the perceptions of self, boss, peers, and direct reports. The Leadership 360® product consists of a set of 12 LEA questionnaires (1 self form and 11 observer forms), a Personal Feedback Report, and a Resource Guide. The Personal Feedback Report profiles the respondent's questionnaire data in graphic and narrative format. The Resource Guide contains additional interpretive information about the 22 LEA leadership sets, as well as specific action steps targeted specifically toward boss, peers, and direct reports. In addition, the Resource Guide contains exercises that help in prioritizing areas for leadership development, and provides the structure for building detailed, action-oriented development plans.

Coaching for Results™
A report that provides an individual's coach (boss, peer, or mentor) with the narrative information generated by the individual's Leadership 360® report, as well as individualized coaching strategies and a structure for developing an ongoing coaching relationship and detailed development plans.

Leadership Audit™
A report based on cumulative Leadership 360® assessments, providing composite information that can be used for training needs analysis and organizational development.

Types of Feedback Display: GRID/PLOT and NARRATIVE

In the Leadership 360® Personal Feedback Report, scale scores for self and observers are graphically depicted throughout the feedback. The "Profile Review" section of the feedback provides a narrative interpretation of raters' perceptions and suggested developmental opportunities, presented by rater group (boss, peers, direct reports).

Breakout of Rater Responses

In the Leadership 360® Personal Feedback Report, averaged responses for peers and direct reports are provided separately. If more than 1 boss responds, those too are averaged.

Feedback Delivery Strategies

Comparison to norms
In all LEA feedback reports, raw scores are normed and presented as percentiles. The LEA has been used worldwide in hundreds of organizations, large and small, public and private. The LEA databases have unusual breadth for commercial psychological tests, due to the centralization of test processing and the generous contribution of data by questionnaire respondents. With LEA products, norm tables become quite stable when several hundred observations are available. Technically, sample means tend to mirror the population means precisely when sample sizes approach 1,500.

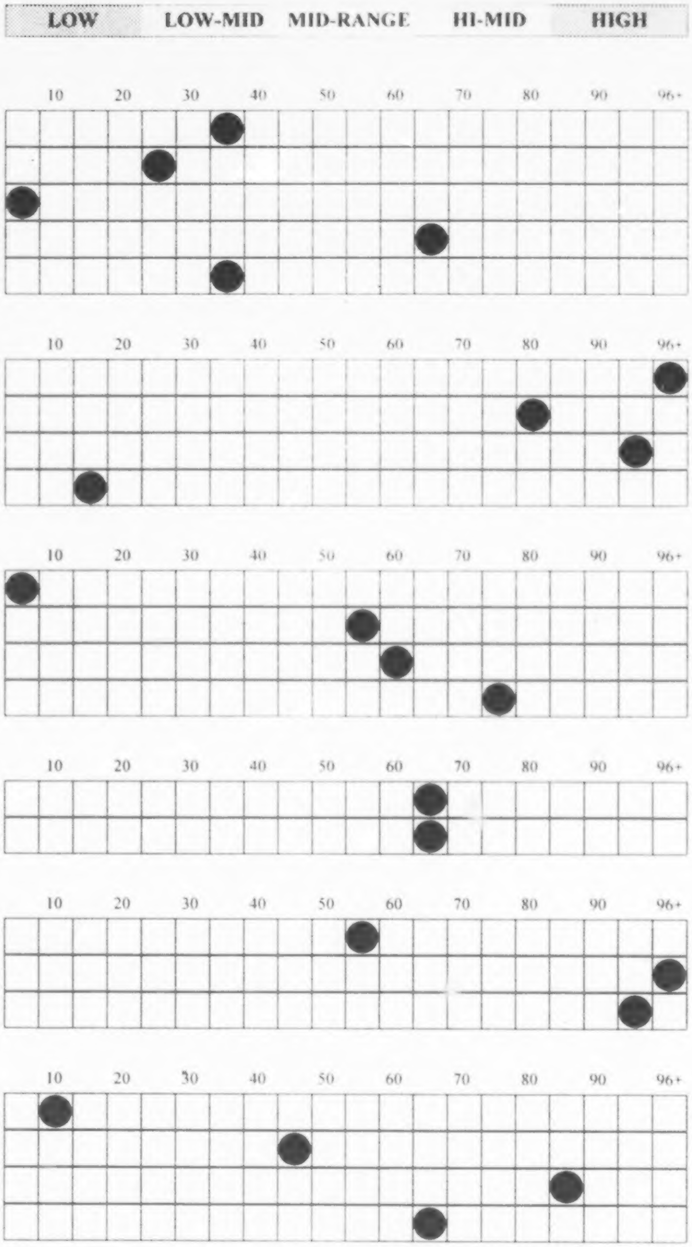
The database from which all norm tables are derived is cumulative. As of January 1998, the LEA Self Diagnostic Questionnaire database contains in excess of 31,000 cases. The majority of these cases are from North America (65%) and Europe (29%), with relatively small populations from Latin America/Caribbean (2%), Middle East/Africa (2%) and Asia/Pacific Rim (3%). The LEA Observer Diagnostic Questionnaire database contains more than 143,000 cases. Of these, 19,000 are bosses, 64,000 are peers, and 60,000 are direct reports of the individuals being rated. Descriptions of these large normative populations are provided in the technical manual (Kabacoff, 1998).

Highlighting largest self/rater discrepancies
In the Leadership 360® Personal Feedback Report, graphic profiles are provided that compare self scores to ratings by each observer group.

CHRIS WILLIAMS
ABC COMPANY
01/01/98

LEADERSHIP EFFECTIVENESS ANALYSIS™

Self-Report Profile



Creating a Vision

Conservative	35%
Innovative	25%
Technical	5%
Self	65%
Strategic	35%

Developing Followership

Persuasive	99%
Outgoing	80%
Excitement	95%
Restraint	15%

Implementing the Vision

Structuring	5%
Tactical	55%
Communication	60%
Delegation	75%

Following Through

Control	65%
Feedback	65%

Achieving Results

Management Focus	55%
Dominant	99%
Production	95%

Team Playing

Cooperation	10%
Consensual	45%
Authority	85%
Empathy	65%

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MANAGEMENT
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Highlighting high/low items and scales
In the Leadership 360® Personal Feedback Report, for each rater group, narrative interpretations are based on combinations of very high and very low scale scores. The 4 lowest scale scores are presented as Developmental Opportunities as perceived by that rater group.

Importance to job or success
If the organization elects to use the LEA Strategic Directions process, a group of senior executives will meet in a facilitated session to determine which of the 22 LEA leadership practices will be essential for the overall organization. These results will then be provided to individuals in the Leadership 360® Personal Feedback Report as a basis to begin developmental action planning.

Other
The Leadership 360® Personal Feedback Report provides a "degree of rater agreement"—a reflection of the consistency of agreement among observers. A high rater agreement means that 75% or more of the observers clustered within 25 points of each other, medium agreement reflects 50%-74% are similarly clustered, and low rater agreement means fewer than 50% fell within a 25-point range. A discrepancy in observations suggests a difference in the impact the individual has on various raters.

SUPPORT AND DEVELOPMENTAL MATERIALS

Support for Participant

Development and planning guides
The *Strategic Directions* participant package provides extensive interpretive information about the impact of the LEA sets at the organizational level to help senior management determine which will be critical to the organization's success; what specific outcomes can be expected if these leadership behaviors are developed; and what action steps they, as a group of key leaders within the organization, can take to reinforce, support and model these critical leadership behaviors.

The *Leadership 360®* product provides extensive interpretive and developmental information for the individual in the Personal Feedback Report and the Resource Guide. The Resource Guide also contains exercises that help in prioritizing areas for leadership development and provides the structure for building detailed, action-oriented development plans.

Workshops
Strategic Directions is designed to be delivered as a facilitated 1/2- to 1-day discussion with a group of key leaders within the organization. *Leadership 360®* feedback can be delivered to individuals through a 1-day workshop or in one-on-one discussions. Facilitation of all MRG

feedback delivery systems must be provided by individuals who have been facilitator-trained by Management Research Group or a designated MRG Master Trainer.

Post-assessment
MRG offers the following post-assessment options for individuals who have received Leadership 360® feedback:

- *Coaching For Results*™: Provides the individual's coach (boss, mentor, or selected peer) with narrative results of the Leadership 360® assessment and a structured process for an ongoing, developmental coaching relationship.

- *Strategic Leadership Practices*™ *(SLP)*: A series of 6 highly experiential training workshops developed jointly by MRG and MICA Management Resources. These training modules are designed to help individuals practice and master the specific LEA leadership behaviors they need to develop, and are customized to the organization and the individual. Participants receive workbooks containing interpretive material, worksheets, and exercises. In exercises, practice cycles, and field assignments participants address their own specific workplace issues to develop the desired leadership behaviors.

- *Leadership 360® Reassessment:* Individuals may repeat the assessment process after 12 to 24 months in order to measure progress and chart new development goals.

Summary worksheets
Summary worksheets are available in the Strategic Directions Process Guide, the Leadership 360® Resource Guide, the Coaching for Results report, and each of the Strategic Leadership Practices participant workbooks.

Support for Trainer

Trainers' guide/manual
Comprehensive Facilitator Guides are available for *Strategic Directions*, *Leadership 360®*, and *Strategic Leadership Practices*™. These guides contain extensive interpretive information on the 22 LEA leadership sets, step-by-step instruction on facilitating feedback workshops, numerous resource materials, and reproducible workshop exercises and overhead transparencies.

Workshop
MRG offers a 3-day facilitator training program for *Strategic Leadership Development* for human resource professionals wishing to administer and deliver any LEA-related feedback. Individuals are trained in the interpretation and delivery of feedback from all LEA questionnaires, the workshop facilitation of *Strategic Directions* and *Leadership 360®*, and the use of LEA feedback in many diverse applications (i.e., coaching, team building, one-on-one

discussions). Participants receive their own *Leadership 360*® feedback, plus sample copies of all LEA-related feedback materials and the *Strategic Directions* and *Leadership 360*® Facilitator Guides.

MRG and MICA Management Resources offer a 5-day facilitator training program for *Strategic Leadership Practices* for human resource professionals wishing to deliver these training modules. Participants receive the *Strategic Leadership Practices*™ participant workbooks and journal, plus facilitator materials that include a training video, wall charts, overheads, and Facilitator Guide. Prior facilitator training in *Strategic Leadership Development*™ is recommended but not required.

Supplemental norms
Upon request, MRG can provide norms for organizational level, function, and industry.

Video
A brief video explaining the 22 LEA leadership behaviors is included in the *Strategic Leadership Practices*™ facilitator materials.

Supplemental materials from the vendor
MRG has developed a number of internal research reports and interpretive papers that are made available to facilitators. MRG staff members will consult with facilitators on LEA interpretation and feedback applications. MRG also offers a global network of consulting firms who can provide consulting expertise and local delivery of LEA-related feedback systems.

Certification Requirements

In order to purchase and deliver any form of LEA feedback, individuals must currently be an organizational consultant, human resource professional, or clinical or I/O psychologist, and must attend a 3-day *Strategic Leadership Development*™ facilitator training program offered by the Management Research Group or one of its designated Master Trainers.

In order to purchase and deliver the *Strategic Leadership Practices*™ *(SLP)* training modules, individuals must currently be an organizational consultant, human resource professional, or clinical or I/O psychologist, and must attend a 5-day *SLP* facilitator training program offered by the Management Research Group, MICA Management Resources, or one of their designated Master Trainers.

Scoring Process

All forms of the LEA questionnaires are computer scored by the vendor. A remote data entry and scoring system is available. MRG is currently developing on-line questionnaires for completion and scoring over the World Wide Web. Once MRG receives all questionnaire data, feedback reports can be produced in 2 to 10 days, depending upon the size of the group. Some same-day turnaround service is available.

OTHER CONSIDERATIONS

Cost

LEA questionnaires and computer scoring are included in the price of the feedback product, rather than sold independently. Product prices also include all related participant materials.

Suggested Retail Prices:
Leadership 360® (self and observers): $300/person
Leadership 360® (self-data only): $170/person
Coaching For Results™: $100/person
Strategic Directions: $250/person
Strategic Leadership Practices™ (single module): $105/person
Strategic Leadership Practices™ (all 6 modules): $375/person

Length of Instruments

The LEA Self Diagnostic Questionnaire consists of 84 questions and 18 demographic questions included for research purposes. The LEA Observer Questionnaire has 66 items, 11 demographic questions, and 20 "for research only" questions that relate to the effectiveness of the person being rated. Each of these forms can be completed in about 30 minutes. The LEA Strategic Directions and Role Expectations Questionnaires also contain 66 items and 11 demographic questions. Each of these forms can be completed in about 25 minutes.

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ACUMEN® LEADERSHIP SKILLS

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Copyright Dates: 1990, 1993, 1996, 1998

Statement of Purpose

Acumen Leadership Skills (LEADERSHIP SKILLS) is a multi-rater competency feedback instrument developed by Acumen International intended for use as a feedback tool for stimulating and guiding management development. First released in 1990 as PRAXIS for Managers, LEADERSHIP SKILLS measures leadership skills described in behavioral terms and indicates which skills co-workers believe to be most important for managers (Guest & Hudy, 1997).

Target Audience

LEADERSHIP SKILLS is intended for executives, middle-level managers, and first-line managers.

Feedback Scales

LEADERSHIP SKILLS contains 16 scales that are grouped into 4 conceptual arenas: Task Management, Team Development, Business Values, and Leadership. Each skill area is measured by 6 items. The conceptual arenas and their scales are:

TASK MANAGEMENT: Defining work activities, providing the task structure necessary for results.

Informing
Measures how well a manager assures a consistent, timely flow of information to team members. Sample item: Communicates information in a timely way.

Efficiency
Measures a manager's effectiveness in using time and resources to deal with the important issues at hand. Sample item: Self-disciplined and focused.

Planning
Measures the degree to which a manager organizes the work and sets priorities so that everyone knows what to do. Sample item: Defines clear, actionable, and measurable plans.

Problem Solving
Measures how well a manager is able to assess problems and find solutions. Sample item: Readily assesses problems and their impact.

TEAM DEVELOPMENT: Providing people with the motivation and supportive social climate required for long-term high levels of performance and satisfaction.

Performance Feedback
Measures the degree to which a manager gives useful, informal feedback to team members. Sample item: Lets team members know how they're doing.

Relationship Skills
Measures a manager's ability to create warm and friendly relationships at work. These skills help build trusting, cooperative relationships that boost morale and enable high team performance. Sample item: Shows an understanding of others' needs.

Staff Development
Measures the effort a manager puts into training team members, improving their skill levels, and addressing their career development needs. Sample item: Finds opportunities for useful coaching on everyday tasks.

Team Motivation
Measures a manager's skill in motivating others to work hard, making good performance rewarding and satisfying. Sample item: Motivates others to be productive.

BUSINESS VALUES: Measuring the broad strategic choices that managers make in the values and business operations they promote.

Quality Improvement
Measures the degree to which a manager emphasizes high quality and takes action to improve it. Sample item: Sets clearly defined quality improvement objectives.

Customer Focus
Measures a manager's concern for ensuring that team members stay alert to internal and external customers' expectations about quality, service, and responsiveness. Sample item: Actively solicits customer feedback and criticism.

Promoting Innovation
Measures the extent to which a manager's desires for new ideas is shared with others in inspirational ways. Sample item: Asks questions that make people see things differently.

LEADERSHIP: Demonstrating the personal skills that enhance a manager's ability to motivate and direct the actions of others.

Accountability
Measures the extent to which a manager personally exemplifies responsible, ethical, and honest behavior. Sample item: Takes full responsibility for actions.

Empowerment
Measures a manager's tendency to push decision-making authority and responsibility downward, giving team members "ownership" of their work. Sample item: Shows confidence in others by letting them make important decisions.

Influence
Measures a manager's ability to express ideas in ways that lead others to share their perspective and reach agreement. Sample item: A determined and persuasive negotiator.

Mission Skills
Measures how well a manager creates a compelling picture of the organization's values and purpose. Sample item: Articulates a compelling image of the organizational future.

Networking
Measures a manager's skill at developing useful contacts with a range of people in a variety of locations. Sample item: Builds strategic relationships with key people.

A library of 35 additional assessment scales is available on a per-need/custom basis. This list of skill areas includes: Asking Questions, Diversity, Listening, Decision Making, and Initiative.

Response Scale

Respondents rate how frequently the manager uses each behavior, using a 5-point scale.

1 = Never
2 = Seldom
3 = Sometimes
4 = Often
5 = Always

The LEADERSHIP SKILLS co-worker assessment provides some additional features. First, the co-worker assessment includes a nonresponsive choice labeled UTR or Unable-to-Rate. This helps to ensure that managers receive feedback assessments from qualified co-workers. Co-workers also are asked to identify 5 out of the 16 skill areas that are more important for the manager's position. Co-workers are then asked to rank the 5 skill areas in order of importance.

INSTRUMENT DEVELOPMENT

Origin of Items: Theory/Experience

LEADERSHIP SKILLS is based on the work of over 40 noted experts (such as Campbell, Dunnette, Lawler, & Weick, 1970; Likert, 1967; Mintzberg, 1973; Yukl, 1988) in the field of management research. Each of the skill areas was chosen because of its emphasis in the literature. A review of management literature led to an initial set of 36 skill areas thought to be effective managerial skills. Through expert judgment and informal pilot tests, Acumen reduced that set to 22 skill areas. Empirical research reduced it further to 16 score areas.

Development of Feedback Scales

Core clusters of items were identified through the use of cluster-analytic methods for self-ratings and co-worker ratings. The 2 sets of core clusters were then matched using cross-cluster similarity indices to maximize congruence between self and co-workers.

Scales were constructed from those core clusters that related positively to effectiveness ratings of focal managers. Each scale was built using the 8 items with the best statistical properties (item-total correlations, item reliabilities, and response strengths).

The authors examined the correlations among the scales, using data from co-workers' ratings. The authors report that the scales are only moderately differentiated. They note that this can be interpreted to mean that each scale measures a significant portion of general managerial effectiveness, which is to some degree desirable.

This item set has since been reduced to 6 items per scale with no decrement in measurement. As a result, users are ensured of high levels of reliability without having to complete extraneous questions.

Reliability

Test-retest
Acumen has assessed test-retest reliability for managers who have used LEADERSHIP SKILLS on 2 occasions, 1 year apart in time (which is considered a long interval). Moreover, different co-workers provided the feedback ratings at Time 1 and Time 2. Co-worker test-retest reliabilities ranged from .48 (on Mission Skills) to a high of .68 (on Relationship Skills). In the same study, self-assessment test-retest reliabilities range from .29 to .63.

Internal consistency
Internal consistency was assessed using Cronbach's alpha coefficient and the Guttman (Rulon) version of the split-half correlation coefficient. These analyses were performed on data from 3,671 managers. Alphas for self-ratings range from .72 for Staff Development to .84 for Quality Improvement. Guttman coefficients for self-ratings range from .73 for Efficiency to .85 for Mission Skills. Alphas for co-worker ratings range from .89 for Promoting Innovation to .95 for Relationship Skills. Guttman coefficients for co-worker ratings range from .88 for Efficiency to .95 for Relationship Skills.

Interrater
Intraclass correlations were used to test for interrater reliability. Data from 19,585 co-workers who rated 3,598 managers were analyzed. The intraclass coefficients for the scales ranged from .61 for Performance Feedback to .73 for Relationship Skills. The intraclass coefficient (Rk) was based on a mean of 5.44 raters per manager.

Validity

On-the-job and leadership effectiveness ratings were concurrently collected with LEADERSHIP SKILLS normative data in a study of data from 291 managers and 1,365 co-workers. Participants were asked to respond to 11 items using a 7-point rating scale. A factor analysis of the effectiveness ratings produced a 3-factor structure: (1) task-related effectiveness, (2) social effectiveness, and (3) anticipatory orientation. Items that loaded on each of the factors were used to produce effectiveness scores for the managers. Correlations between the 16 LEADERSHIP SKILLS competency areas and the 3 factor scores were produced. The results show each scale to be correlated with at least 1 of the 3 factors. This indicates that managers observed to exhibit competencies measured by LEADERSHIP SKILLS are also perceived by co-workers as being effective.

The authors examined the relationship of LEADERSHIP SKILLS scales to the 3 factors described above. This study showed a theoretically coherent pattern of relationships. For example, Planning (typically a task-oriented activity) is much more strongly related to task-related effectiveness than to social effectiveness or anticipatory orientation (*r* = .71 compared to .31 and .20). Also as expected, Empowerment is roughly equally related to the task-related effectiveness and social effectiveness factors (*r* = .48 and .56).

In a second study, Acumen collected on-the-job and leadership effectiveness ratings from the manager's boss concurrently with LEADERSHIP SKILLS data from co-workers. This study involved 1,675 bosses who responded to 6 items using a 7-point rating scale. The study concluded that all 16 competencies measured by LEADERSHIP SKILLS are strongly related to management effectiveness as rated by the boss. Specifically, managers identified (by their boss) as more highly effective are described by their co-workers as having higher levels of all 16 LEADERSHIP SKILLS competencies. Each of the 16 competency ratings by co-workers has a correlation larger than .30 with at least 1 of the effectiveness ratings.

In a third study conducted inside a large transportation company, LEADERSHIP SKILLS ratings for 652 managers were compared to management performance measures that included promotion rate, a validated managerial selection assessment, and a performance appraisal rating. All 16 LEADERSHIP SKILLS ratings from co-workers were significantly correlated with the performance appraisal, with correlations ranging from .17 to .35. The study also found that LEADERSHIP SKILLS co-worker ratings are significantly correlated with promotion rate (for 12 of the 16 scales) and the managerial selection assessment.

Within that same company, LEADERSHIP SKILLS results for operating center managers were compared to the results of an employee opinion survey administered across 111 operating centers from different locations. Significant correlations were found between LEADERSHIP SKILLS and the survey factors (*r* = .18 to .35). These results suggest that managers with high scores on LEADERSHIP SKILLS competency areas are those who have employees with more positive attitudes about their work and the company. The leadership practices of an operating center manager have a broad impact on employee attitudes, despite being filtered through multiple layers of supervision or management.

Finally, a study of 67 top managers in a Fortune 500 company examined the relationship between LEADERSHIP SKILLS and Acumen® Leadership Work*Styles*™ ("WORK*STYLES*"). WORK*STYLES* is a multi-rater, thinking-style assessment developed by Acumen. Repeated studies with WORK*STYLES* had already indicated that higher performance is associated with specific thinking styles. This later study looked at how managers' thinking styles, as measured by WORK*STYLES*, relate to how well managers perform in management-specific competencies, as measured by LEADERSHIP SKILLS. The overall findings of this study are consistent with earlier WORK*STYLES* validation research on management effectiveness. Managers who fit the WORK*STYLES* profile for an effective management style (high scores on Achievement, Self-Actualization, Humanistic-Helpful, and Affiliation scales) had significantly higher scores on all 16 competencies in LEADERSHIP SKILLS. Managers who exhibit a WORK*STYLES* profile that shows predominantly counterproductive styles (high scores on the Apprehension, Oppositional, Power, and Competition scales) had lower scores across the 16 LEADERSHIP SKILLS competencies.

A Caution Statement on Misinterpretations

The most widely used purpose of LEADERSHIP SKILLS is to provide developmental feedback to managers. Given that the LEADERSHIP SKILLS instrument has a psychometrically sound foundation, it can also be used for other purposes such as contributing to placement, promotion, salary, or performance management decisions, with the proviso that reasonable precautions and conditions are met. LEADERSHIP SKILLS and similar instruments have been shown to be significantly correlated with boss ratings of performance, annual performance review ratings, and measures of business results and outcomes such as measures of financial performance, employee satisfaction survey results, and indices of customer satisfaction. For use in contributing to placement, promotion, salary, performance management, or other decisions affecting any terms or conditions of employment, the reasonable precautions include:

1. The LEADERSHIP SKILLS scores should be used in conjunction with other on-the-job observations and performance measures, rather than as the sole source of information for decision making. LEADERSHIP SKILLS is a good complement—but never a replacement—for direct measures of performance.
2. Managers and co-workers should be informed clearly about the intended use of the instrument. Managers and employees should have accurate information about how the LEADERSHIP SKILLS information will be used before they participate in the process. For example, the company's consideration of LEADERSHIP SKILLS results in making decisions affecting terms and conditions of employment might be disclosed in the company handbook, memoranda relating to reviews, or other documents provided to employees. Of course, all statements in the handbook or other documentation should be consistent with the use of LEADERSHIP SKILLS.
3. The LEADERSHIP SKILLS scores that are used should be demonstrably relevant to the manager's job. For example, in making decisions affecting any term or condition of employment, it would be reasonable to include the LEADERSHIP SKILLS ratings of Planning or Problem Solving for a manager whose job encompasses planning and problem solving, whereas it would be unwise to include the LEADERSHIP SKILLS ratings of Staff Development for a manager who does not have responsibility for a staff of direct reports.
4. The LEADERSHIP SKILLS instrument should be used within an appropriate time frame. For example, it would be reasonable to use LEADERSHIP SKILLS ratings collected at the end of a performance period as part of the performance review information. But it would be unwise to rely on LEADERSHIP SKILLS ratings collected a considerable time

ago, because the manager may have used the feedback to make improvements in the meantime.

5. Reasonable procedures should be adopted to ensure the selection of unbiased, knowledgeable co-workers as raters. The human resources department should be actively involved to make sure that the process of determining who will provide ratings is fair.
6. As with any measure of performance or method of review, the company should continue to consider factors (statistical or otherwise) that may indicate any disparate impact upon any protected classifications of employees, to ensure that no disparate impact occurs.

These precautions and conditions are not unique to LEADERSHIP SKILLS, but apply generally to any multi-rater instrument that would be used in a similar manner.

International Use

Translations
LEADERSHIP SKILLS has been translated into Spanish.

International norms
Norms can be developed for any culture on a customized basis.

Internationally tested for validity/reliability
Not currently available.

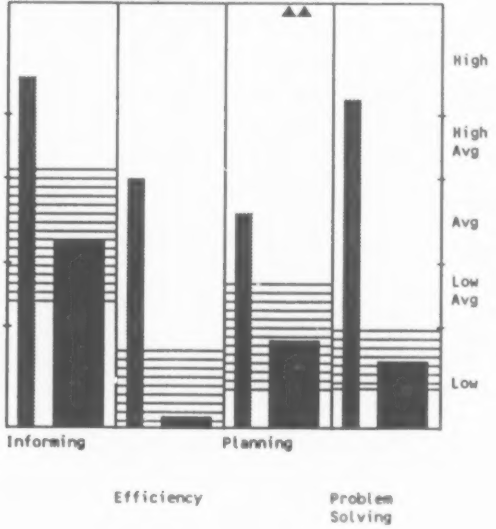
CHARACTERISTICS OF FEEDBACK

Types of Feedback Display: BAR GRAPHS and NARRATIVE

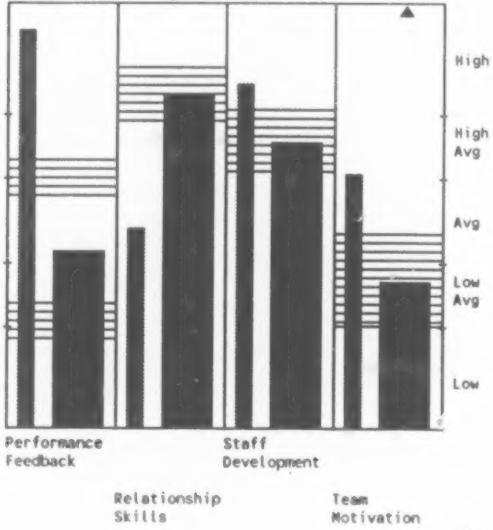
LEADERSHIP SKILLS results are presented in both graphic and narrative form. Vertical bar graphs are used to display scores. The scales are grouped into the 4 conceptual categories: Task Management, Team Development, Business Values, and Leadership. In any scale, the self-assessment score is represented by a narrow, shaded bar. The composite score from co-workers—the main focus of the feedback—is represented by a wide, solid bar. Taller bars represent higher scores, shorter bars represent lower scores. The amount of variation in ratings from co-workers (bosses, peers, direct reports, or other rater groups) is represented in the graph by a patch of horizontal lines, as background to the dark, solid bar. Cumulative input for importance ratings are portrayed in the graphic display as triangles above the 5 most important skill areas they have identified. The single most important skill area is marked with 2 triangles.

A detailed description (40-65 pages) of the manager's results is provided in the narrative section of the feedback. For each skill area or scale, several pieces of information are in-

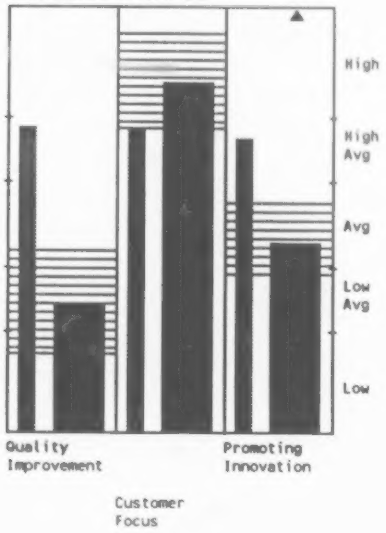
Task Management



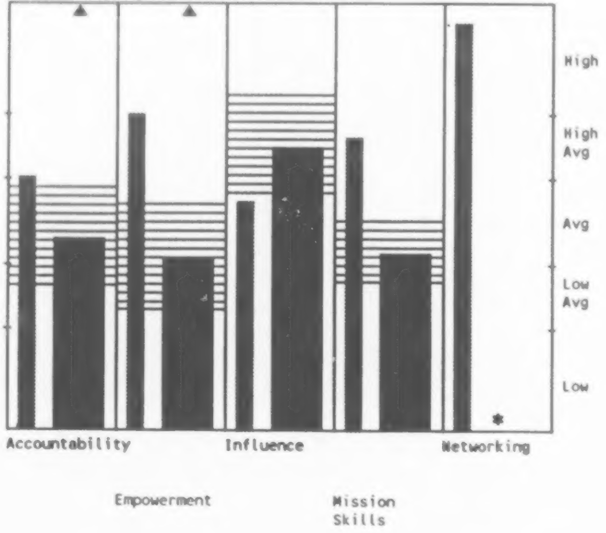
Team Development



Business Values



Leadership



▮ Rating by Self

■ Rating by Co-workers

▤ Spread of Co-worker Ratings

▲▲ Rated Most Important by Co-workers

▲ Rated Important

* Others Unable to Rate (Fewer Than 3 Ratings)

This report is based on 10 co-workers' ratings cluded: (1) a written explanation of the graphic data; (2) a list of potential barriers to success; (3) a comparison of the skill area with other LEADERSHIP SKILLS competencies; (4) a complete list of practices of the manager showing "Do More" and "Do Less"; and (5) suggested activities for development (social learning activities, examining attitudes and values, increasing knowledge and understanding in particular areas, and simple behavioral changes a manager can make).

Breakout of Rater Responses

Since many managers express interest in knowing how they are seen from different perspectives, LEADERSHIP SKILLS has a secondary, optional graphic in the Overview to show the breakout of ratings from bosses, peers, direct reports, and others (where applicable). The ratings in the breakout graphic are scaled exactly the same way as the main Overview graphic. To maintain confidentiality for individual raters, LEADERSHIP SKILLS displays the breakout groups only if there are at least 3 raters in the group (e.g., the report displays the breakout for peers only if at least 3 peers complete an assessment). LEADERSHIP SKILLS can also print bosses' ratings separately, even if only 1 boss has provided assessment information, given that the boss consents to having those ratings displayed separately as "ratings by boss." The administrator in charge of printing LEADERSHIP SKILLS reports also has the option of printing breakout graphics without displaying the boss ratings.

Feedback Delivery Strategies

Comparison to norms
The bars on the feedback graph are scaled in standard scores to permit comparisons with a norm group.

Although the collection of the normative data began in 1988, the bulk were collected since 1991. The norms are updated every 2 years. The managers represent different industries (including government, software, computer electronics, service, pharmaceutical, construction, utility, mining, manufacturing, petrochemical, communications, retail trade, finance, and insurance) and management responsibility (executives, middle managers, line managers, administrative managers, and some professionals with matrix management responsibilities). The majority (75%) of the managers are male. About a quarter (26%) were less than 35 years old, and about a third (34%) were more than 45 years old.

Current norms are based on a sample of 3,671 managers and 19,786 co-workers. New norms will be published in 1998.

Highlighting largest self/rater discrepancies
Discrepancies between self- and co-worker ratings for any scale are readily apparent in the main graphic—the graphic shows corresponding bars side by side for direct comparison.

Further, the report explicitly discusses the issues within the narrative text on each scale, including suggested development activities to help explore the nature of any sizable gap in perceptions. Finally, a special narrative section appears in the Overview for any manager whose self-ratings are consistently higher (or lower) than co-worker ratings.

Highlighting largest differences among co-worker ratings
The LEADERSHIP SKILLS graphic displays the amount of variation among co-workers' ratings by a patch of horizontal lines on the main graphic. A relatively narrow band signifies close rater agreement, while a large band indicates contrasting opinions from different raters. For skill areas that include 2 distinct groups of ratings, the LEADERSHIP SKILLS graphic splits the band of horizontal lines into 2 widely separated bands to indicate that 2 groups of raters have different opinions about the manager. The narrative text further discusses discrepancies within rater groups.

Item-level feedback
Item-level feedback is displayed in the graphic. Displayed for each item are the manager's score, the average raw score from co-workers, the number of co-workers responding to that item, and the average score for managers in the norm group.

Highlighting high/low items and scales
Co-workers' highest and lowest skill areas are identified and discussed in the narrative section of the feedback report and displayed in the Overview graphic.

Importance to job or success
The skill areas that co-workers considered most important for the manager's job are provided in the feedback. The authors recommend that the high-ranking areas be used to help prioritize skill areas for development activity.

"Do more/do less"
Included in the narrative report.

SUPPORT AND DEVELOPMENTAL MATERIALS

Support for Participant

Development and planning guide
The *Leadership Skills Report* contains personalized feedback; it provides managers with a graphic overview of the scores, a narrative discussion of the results on each scale, specific information about how results on that scale are related to the manager's results on the other scales, and options for developmental activities related to scores on each of the 16 scales.

The *Leadership Skills Workbook* contains a guide for evaluating and working with results, along with a personalized development plan for change.

Workshop
A 1-day workshop is available through Acumen International. The workshop is comprised of individual and team problem-solving activities and exercises, and an Action Planning Process. Participants complete this workshop in 2 parts: the first session addresses the assessment/feedback results, while the second session focuses on action planning.

Post-assessment
LEADERSHIP SKILLS allows for unlimited reassessments by self and co-workers. The software is reusable, and managers can compare prior results to current results. In addition, the *Leadership Skills Workbook* contains follow-up activities that a manager completes over a 1-year time frame.

Vendor hotline
Acumen International has a toll-free number participants can call for supplemental information and assistance.

Summary worksheets
Worksheets are provided in the *Leadership Skills Workbook.*

Support for Trainer

Trainers' guide/manual
The *Leadership Skills Facilitator Guide* is an administrative-support guide available to help trainers lead a management training course using the LEADERSHIP SKILLS feedback. The 3-piece guide serves as a technical guide, an administrative guide, and as a leaders' guide. The leaders' guide is fully scripted, includes overhead masters, and offers all required instructional material for leading a workshop.

Workshop
Acumen International offers Trainer Certification Workshops and on-site consulting to customize workshops. Workshops for participants (e.g., Executive Team Building) are also available.

Supplemental norms/group report
Customers can compile and print group reports on-site if they purchase a report processor or purchase this processing service directly from Acumen.

Supplemental materials from the vendor
Acumen can provide complete workshop materials, validity studies, and numerous research papers on how to implement the LEADERSHIP SKILLS instrument.

Certification Requirement

Acumen provides open Trainer Certification Workshops to train and certify qualified professionals to deliver LEADERSHIP SKILLS workshops. Acumen can also deliver Trainer Certification Workshops with up to 15 participants to a specific organization.

Scoring Process

LEADERSHIP SKILLS uses Web-based, LAN-based, and PC floppy disks on PC instruments and/or paper-and-pencil forms to collect information from managers and co-workers in a company. Each LEADERSHIP SKILLS assessment instrument contains all the programming needed to collect self- and co-worker assessment information using a personal computer.

An "expert system" report-generator, which also runs on a personal computer, produces the printed feedback reports. The report-generator software can be purchased for on-site processing, or managers can send their assessment results to Acumen for scoring and feedback.

Form Consistency

Across-form consistency is not an issue between computer-disk and paper-and-pencil forms of the LEADERSHIP SKILLS assessment instrument. A recent study of this issue utilized a sample of 210 managers (76 of them using paper-and-pencil self-assessments) and 1,008 co-workers (350 of them using paper-and-pencil forms). Analyses of variance were performed for each of the 16 LEADERSHIP SKILLS scores to examine the differences in responding to paper versus computerized assessments for both self-ratings by managers and ratings by co-workers. In this study, there was considerable statistical power to detect relatively small differences ($\beta=.05$ for differences on 0.21 SD). Despite that, no statistically significant ($\alpha<.01$) differences were found. This result is a strong indication of across-form consistency.

OTHER CONSIDERATIONS

Cost

LEADERSHIP SKILLS costs $175 per manager. Acumen will perform the report processing for an additional fee, or customers can purchase the scoring/report-generator software for $3,500. In addition, Acumen offers a variety of pricing options, from packaged pricing to site licenses, to accommodate the needs of customers.

Length of Instrument

The self-assessment instrument has 12 demographic questions and 116 items. The co-worker assessment has 6 management effectiveness questions in addition to the demographic items and the 116 questions. The management effectiveness questions contribute additional information on how well a manager provides leadership, task structure, social support, communication, influence, and future direction. With this additional information, LEADERSHIP SKILLS assessments ensure that managers receive accurate feedback reports that correctly reflect their management competencies for the 16 LEADERSHIP SKILLS scales. Acumen recommends that participants allot 20 minutes to complete their assessment.

LEADERSHIP SKILLS is built with an open architecture that allows customers to customize items, demographics, score areas, graphics layouts, report narratives, and norms.

LEADERSHIP SKILLS Bibliography

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Likert, R. (1967). *The human organization.* New York: McGraw-Hill.

Mintzberg, H. (1973). *The nature of managerial work.* New York: Harper & Row.

Yukl, G. A. (1988). *Managerial practices survey: Technical report.* New York: Manus Associates.

LEADERSHIP/IMPACT™ (L/I)

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Human Synergistics/Center for Applied Research, Inc.

Copyright Date: 1996

Statement of Purpose

Leadership/Impact (L/I) is designed to provide leaders with otherwise unavailable feedback on their *impact on others* as well as the *strategies and techniques that account for this impact.* More specifically, L/I focuses on 3 major areas: (1) Leadership Strategies—the extent to which the leader personally behaves in *prescriptive versus restrictive* ways, (2) Impact on Others—the extent to which the leader motivates or drives other people to behave in *constructive versus defensive* ways, and (3) Effectiveness—the leader's current performance along *personal* as well as *organizational leadership* criteria.

Target Audience

L/I is relevant to and appropriate for executives, managers, and others with leadership responsibilities.

Feedback Scales

L/I includes 35 scales that are organized into 3 major areas:

I. LEADERSHIP STRATEGIES

Prescriptive Strategies

Prescriptive Envisioning (3 items)
Defines a desired state of future affairs and shares this vision with others. Sample item: Communicating a clear vision of how things should be.

Prescriptive Role Modeling (3 items)
Exemplifies a set of behaviors and reactions that reflect the values and standards desired for the organization. Sample item: Behaving in ways that set a standard for others.

Prescriptive Mentoring (3 items)
Uses active approaches to mentoring that provide direction and create an environment that is "safe" for learning. Sample item: Helping people to "learn the ropes" and understand the system.

Prescriptive Approaches to Stimulation to Thinking (3 items)
Encourages lateral thinking or looking at things in new ways. Sample item: Encouraging people to challenge assumptions and look at things in new ways.

Prescriptive Referring (3 items)
Uses positive referents in remarks and stories about people who could serve as models. Sample item: Telling stories about organizational "stars" and "heroes."

Prescriptive Monitoring (3 items)
Manages by excellence and focuses on what is being done right. Sample item: Showing an interest when people improve work processes or procedures.

Prescriptive Feedback (3 items)
Communicates positive evaluations of people's activities and performance when they are, in fact, performing well. Sample item: Complimenting others for handling problems in the right way.

Prescriptive Reinforcing (3 items)
Uses rewards to recognize and increase the frequency of desired behaviors. Sample item: Celebrating others' successes.

Prescriptive Influencing (3 items)
Uses reciprocal control and influence strategies. Sample item: Gaining the cooperation of others by treating them with respect and dignity.

Prescriptive Approaches to Creating a Setting (3 items)
Facilitates the work performance and growth and development of others. Sample item: Enriching projects to better prepare team members for advancement.

Restrictive Strategies

Restrictive Envisioning (3 items)
Identifies the undesired state of future affairs and emphasizes this vision to others. Sample item: Being clear about what you don't like.

Restrictive Role Modeling (3 items)
Circumscribes certain behaviors by avoiding (or actively refusing) to do things that should not be emulated by others. Sample item: Refusing to do things that could set an undesired precedent.

Restrictive Mentoring (3 items)
Uses more passive approaches to the development of others. Sample item: Knowingly allowing people to make mistakes.

Restrictive Approaches to Stimulation of Thinking (3 items)
Emphasizes more traditional vertical thinking based on logical, mathematical, or rational processes. Sample item: Emphasizing sequential (linear) thinking and the need to justify each step.

Restrictive Referring (3 items)
Uses negative referents in remarks and stories about people whose decisions, actions, and characteristics should not be modeled. Sample item: Referring to mistakes made by people in the past.

Restrictive Monitoring (3 items)
Manages by exception and focuses on what is being done wrong. Sample item: Noticing when people act in ways that differ from what's expected.

Restrictive Feedback (3 items)
Communicates negative evaluations of people's activities and performance when they are not meeting standards. Sample item: Becoming visibly annoyed or impatient when things are not as you would like.

Restrictive Reinforcing (3 items)
Uses punishment or the administration of negatively valued outcomes. Sample item: Excluding from your team those who have not met standards.

Restrictive Influencing (3 items)
Uses unilateral influence strategies. Sample item: Using your position to limit people's discretion.

Restrictive Approaches to Creating a Setting (3 items)
Constrains the behaviors and developmental experiences of others. Sample item: Structuring situations in ways that preclude certain strategies or practices.

II. IMPACT ON OTHERS

Constructive Impact

Achievement (8 items)
Motivates and encourages others to set challenging but realistic goals, establish plans to meet those goals, and pursue them with enthusiasm. Sample item: Take reasonable risks to attain better results.

Self-Actualizing (8 items)
Motivates and encourages others to gain enjoyment from their work, develop themselves professionally, and approach problems with interest, creativity, and integrity. Sample item: Think in unique and independent ways.

Humanistic-Encouraging (8 items)
Motivates and encourages others to be supportive of people, help those around them to grow and develop, and provide others with positive feedback. Sample item: Train new people.

Affiliative (8 items)
Motivates and encourages others to treat people as members of the team, be sensitive to the needs of others, and interact in friendly and cooperative ways. Sample item: Emphasize the importance of the team.

Passive/Defensive Impact

Approval (8 items)
Motivates and requires others to gain the approval of those around them, "go along" with people, and maintain (superficially) pleasant interpersonal relationships. Sample item: Put forth only those ideas and suggestions that are likely to "please" others.

Conventional (8 items)
Motivates and requires others to conform, fit into the "mold," and follow rules, policies, and standard operating procedures. Sample item: Refer to rules and procedures to justify their actions.

Dependent (8 items)
Motivates and requires others to do only what they are told, clear all decisions with superiors, and please those in positions of authority. Sample item: Defy taking action until receiving clearances or approvals.

Avoidance (8 items)
Motivates and requires others to avoid any possibility of being blamed for a mistake, shift responsibilities to others, and maintain a low profile. Sample item: Take few chances.

Aggressive/Defensive Impact

Oppositional (8 items)
Motivates and drives others to point out mistakes, gain status by being critical, and dismiss even good ideas due to minor flaws. Sample item: Be critical and hard to impress.

Power (8 items)
Motivates and drives others to act forceful and aggressive, control the people around them, and build up their power base. Sample item: Provide information to others on a need-to-know basis only.

Competitive (8 items)
Motivates and drives others to operate in a win/lose framework, outperform their peers, and do anything necessary to look good. Sample item: Manipulate situations to enhance their own position.

Perfectionistic (8 items)
Motivates and drives others to set unrealistically high goals, stay on top of every detail, and work long hours to attain narrowly defined objectives. Sample item: Give the impression they always have the answer or the necessary information.

III. EFFECTIVENESS

Organizational Effectiveness (6 items)
Viewed by others as visionary and future-oriented, promoting empowerment and productivity, bringing out the best in people, and concerned with long-term performance. Sample item: Enhances others' productivity *versus* Reduces others' productivity.

Personal Effectiveness (4 items)
Viewed by others as relaxed and at ease, ready for promotion to a higher level, accepting of feedback, and interested in self-development. Sample item: Relaxed and at ease *versus* Tense and stressed-out.

Balance (3 items)
Viewed by others as being properly valued by the organization, exercising an appropriate amount of authority, and having advanced the success of his or her organization to at least the same extent as having advanced his or her own success. Sample item: Undervalued by organization *versus* Overrated by organization.

Response Scales

L/I uses both 7-point semantic differentials and 5-point summated continuous rating scales.

Five-point summated continuous rating scales are used for the items measuring leadership strategies. Respondents use the following response options to describe how frequently the focal manager uses various leadership methods or approaches:

1 = Never
2 = Rarely
3 = Sometimes
4 = Often
5 = Always

Respondents also describe managers' impact on others along a 5-point summated continuous rating scale. The following response options are used to describe the extent to which the focal manager drives or motivates people to behave in certain ways:

1 = Not at all
2 = To a slight extent
3 = To a moderate extent
4 = To a great extent
5 = To a very great extent

Finally, 7-point semantic differentials are used by respondents to describe the focal manager's effectiveness. Respondents record their assessments along 13 continuums, each of which is defined by a pair of polar terms. For example:

Relaxed and at ease 1 2 3 4 5 6 7 Tensed and stressed out

The response options for the leadership strategies and the impact on others items are the same on the Self Report and Description by Others inventories (the effectiveness items appear only on the Description by Others inventory).

INSTRUMENT DEVELOPMENT

Origin of Items: Theory/Research

L/I Theoretical Model

The theoretical model underpinning the 3 major areas measured by L/I was derived based on theory and research in the areas of leadership and organizational culture. An extensive review of the leadership literature by Yukl (1989) led to the conclusion that the only consensus among definitions of leadership was that it had something to do with influence. Yet, existing assessments of leadership focus on managers' personal styles or behaviors rather than the way in which they affect the behavior of others. Thus, a manager's influence or impact on the behavior of others became the focus of L/I.

Research conducted by Human Synergistics (1986) lent support to the contention made by Edgar Schein (1983) and others that leaders have a profound impact on shaping, directing, and reinforcing the culture of an organization or subunit, particularly at the level of behavioral norms or expectations for behavior. In turn, Cooke and Szumal (1993), Klein (1992), Masi (1994), and others found that the behaviors expected and reinforced by managers have implications for unit as well as organizational effectiveness.

The L/I Theoretical Model suggests that the leadership strategies used by a manager have an impact on the behavior of others. In turn, both the strategies used by the manager and the impact that he or she has on the behavior of others have implications for his or her leadership effectiveness.

Leadership Strategies

At a very general level, modes of leadership can be prescriptive versus restrictive. *Prescriptive* leadership strategies are those that guide or direct the activities and behaviors of others toward goals, opportunities, and methods. *Restrictive* strategies are those that constrain or prohibit activities or behaviors with respect to goals, opportunities, and methods.

It is proposed that prescriptive strategies have a more constructive impact on people than do restrictive strategies and, because constructive behaviors are more effective than defensive behaviors, prescriptive strategies are generally more appropriate and desirable. This approach to leadership has its roots in the classic work of Rensis Likert (1961) and Douglas McGregor (1960), the latter proposing that the assumptions managers make about employees translate into management styles, which, in turn, have an impact on the behavior and performance of those employees. This approach to leadership is also consistent with the more contemporary writings of theorists such as Bennis and Nanus (1985) and O'Toole (1995), who propose that certain types of leadership actions are consistently appropriate across different situations.

Impact on Others

The basic framework developed for the Life Styles Inventory (Lafferty, 1973) and the Organizational Culture Inventory (Cooke & Lafferty, 1983) was used to define 12 sets of behaviors that a leader can encourage or promote. These 12 sets of behaviors are described by 2 underlying dimensions. The first dimension is based on Maslow's distinction between behaviors directed toward the fulfillment of higher-order growth needs versus those directed toward protecting and maintaining one's security. The second dimension distinguishes between task-oriented and people-oriented behaviors. This latter distinction has been highlighted by many leadership theorists, including Stogdill (1963) and Blake and Mouton (1964).

Consistent with the "security-satisfaction" and "task-people" distinctions, the 12 sets of behaviors measured by L/I can be categorized into 3 general types of impact that a leader can have on the behavior of others—*Constructive*, *Passive/Defensive*, and *Aggressive/Defensive*.

Leaders who have a Constructive impact encourage and motivate others to relate to people and approach their work in ways that help them personally to meet their higher-order needs for growth and satisfaction. The specific Constructive behaviors that can be promoted by leaders are Achievement, Self-Actualizing, Humanistic-Encouraging, and Affiliative.

Leaders who have a Passive/Defensive impact drive and reinforce others to interact with the people around them in self-protective ways that will not threaten their own security. The specific Passive/Defensive behaviors that can be attributed to leaders are Approval, Conventional, Dependent, and Avoidance.

Finally, leaders who have an Aggressive/Defensive impact drive and motivate others to approach their task-related activities in forceful ways to protect their status and security. The specific Aggressive/Defensive behaviors that can be promoted by leaders are Oppositional, Power, Competitive, and Perfectionistic.

Development of Feedback Scales

The 20 specific leadership strategy scales load on 2 factors that explain approximately 57% of the variance in the scales. These factors reflect Prescriptive and Restrictive leadership strategies. All of the scales load on the proper factor with the exception of Restrictive Role Modeling, which loads on the Prescriptive factor. Restrictive Envisioning loads on both factors; however, the higher loading is on the correct factor.

The 12 impact on others scales load on 3 factors that explain approximately 80% of the variance in the scales. These factors reflect Constructive, Passive/Defensive, and Aggressive/Defensive behaviors. All of the scales load on the proper factor.

Reliability

Test-retest
Currently, no data are available.

Internal consistency
Alpha coefficients were computed for all scales based on a sample of approximately 2,220 respondents who completed the L/I Descriptions by Others inventory. The alpha coefficients for the composite Prescriptive and Restrictive strategy scales (consisting of 30 items each) are .91 and .84, respectively. For the 20 leadership strategy scales (3 items each), alpha coefficients range from .45 for Restrictive Monitoring to .85 for Prescriptive Feedback (alpha coefficients are above .65 for 12 of the 20 scales). Alpha coefficients for the impact on others scales range from .75 for Perfectionistic to .88 for Humanistic. Finally, the internal consistency of the 3 leadership effectiveness scales is supported by alpha coefficients that range from .67 for Personal Effectiveness to .84 for Organizational Effectiveness.

Interrater
The same sample used to test the internal consistency of the L/I scales was also used to test their interrater reliability. Approximately 320 managers were the focus of the reports. Interrater reliability was examined using a series of Oneway Analyses of Variance (ANOVAs) with the focal manager as the independent variable and the L/I scales as the dependent variables.

The F statistics for the composite Prescriptive and Restrictive leadership strategy scales are significant at the .0001 level. The eta-squared statistics for the composite Prescriptive and Restrictive strategy scales are .32 and .34 respectively. The F statistics for the 20 specific leadership scales are significant at the .0001 level. Eta-squared statistics for the specific leadership strategy scales range from .20 for Restrictive Role Modeling to .35 for Prescriptive Referring.

For the 12 impact on others scales, all F statistics are significant at the .0001 level. Eta-squared statistics range from .26 for Avoidance to .35 for Power.

Finally, the F statistics for all 3 of the leadership effectiveness scales are significant at the .0001 level. Eta-squared statistics range from .25 for Balance to .31 for Personal Effectiveness and Organizational Effectiveness.

Validity

Descriptions by others for approximately 320 focal managers were aggregated to the manager level by computing the average scale scores received by each manager. Correlations were then carried out between the leadership strategy and impact scales, the impact scales and effectiveness scales, and the strategy scales and effectiveness scales.

Consistent with predictions, all of the Prescriptive strategy scales are significantly and positively correlated with the Constructive impact scales and most are significantly and negatively correlated with the Defensive impact scales. Most of the Restrictive strategy scales are significantly and negatively correlated with the Constructive impact scales and significantly and positively correlated with the Defensive impact scales, also consistent with predictions.

The predicted relationship between the impact on others and leadership effectiveness is fully supported by the correlational results. All of the Constructive impact scales are significantly and positively related to the Personal and Organizational Effectiveness scales and all of the Defensive impact scales are significantly and negatively related to the effectiveness measures.

With respect to the relationship between leadership strategies and effectiveness, all of the Prescriptive strategies are significantly and positively correlated with Personal and Organizational Effectiveness. All of the Restrictive strategies are significantly and negatively correlated with Personal and Organizational Effectiveness. Both sets of findings are consistent with predictions.

A Caution Statement on Misinterpretations

The manager's impact results represent how the manager motivates or drives other to behave and should not be interpreted to directly represent the focal manager's personal thinking and behavioral styles. Though the manager's personal styles can partly determine his or her impact on others, these personal styles are more directly and properly measured by the Life Styles Inventory. Additionally, when managers self-select those who describe them, the L/I results tend to be more favorable than when others are randomly selected for the population of those who work for or with the manager.

International Use

Translations

A Russian translation of L/I is available. L/I is in the process of also being translated into Dutch, German, Spanish, and Swedish.

International norms

Not currently available. Data collection is underway that will provide a basis for checking the relevance of the current North American norms for the United Kingdom, Australia, and New Zealand.

CHARACTERISTICS OF FEEDBACK

Types of Feedback Display: CIRCUMPLEX, BAR GRAPHS, GRIDS/PLOTS, and NARRATIVE

Participants receive a confidential feedback report that includes explanations of the L/I measures; the theoretical model linking leadership strategies, impact, and effectiveness; item and scale-level results; bar charts and circumplicial profiles; a development and planning guide; and a list of recommended resources.

Feedback on the composite Restrictive and Prescriptive leadership strategies is provided in bar chart form. Feedback on specific leadership strategies is presented in bar charts that compare the Restrictive and Prescriptive versions of a particular strategy and compare the reports of self, immediate superior(s), peers, and direct reports. Item-level feedback is reported in tables that also show the discrepancies between others' reports and self report.

Results for impact on others are presented on a circumplex, a circular diagram that organizes the 12 sets of behaviors measured by the L/I in terms of their degree of similarity to one another (i.e., styles that are located next to one another are more similar than styles that are located further apart). The greater the extension from the center of the circumplex, the more a manager is viewed as encouraging and promoting the particular set of behaviors. Item-level results are presented in tables that also show the gaps between others' reports of the manager's impact and the manager's self-reported ideal impact.

Finally, assessments regarding leadership effectiveness are presented at the item level in tables and grid/plot form showing average scores and standard deviations.

Breakout of Rater Responses

Results along the impact on others and the specific leadership strategy scales can be reported for superiors, peers, and direct reports separately or together as a single group. In either case, results based on self-report are provided separately.

Feedback Delivery Strategies

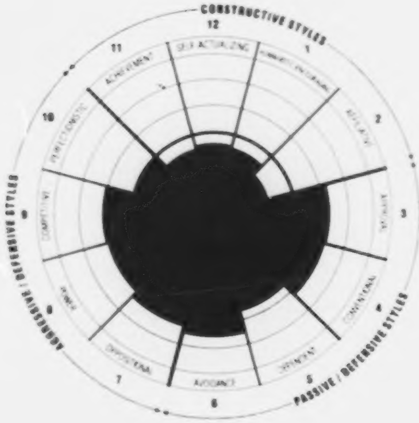
Comparison to norms

Results along the impact on others items and scales are compared to a weighted sample consisting of approximately 420 focal managers who were described by approximately 2,600 others. The results from this sample were weighted by organization type.

Impact on Others

Responses by: ***All Others***

N = 7



Strongest Overall Impact on Others is Passive/Defensive

With respect to the twelve behaviors measured, your…

Primary behavioral impact is Avoidance

More specifically, you lead people to:

- feel apprehensive, insecure about their position and authority
- take few chances
- stay away from difficult situations that could make them look bad

Secondary behavioral impact is Oppositional

More specifically, you lead people to:

- dismiss even good solutions due to minor flaws
- criticize current practices to get their ideas accepted
- focus on the negative (e.g., mistakes) rather than the positive (successes)

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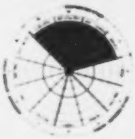
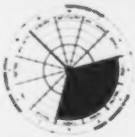
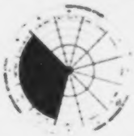
Impact on Others

Responses by: All Others

N = 7

Constructive Behaviors		Percentile Score	Raw Score	Standard Deviation
	Humanistic/Encouraging	37%	20.0	0.0
	Affiliative	25%	20.0	0.0
	Achievement	36%	20.0	0.0
	Self-Actualizing	39%	20.0	0.0

Passive/Defensive Behaviors		Percentile Score	Raw Score	Standard Deviation
	Approval	79%	10.0	0.0
	Conventional	78%	12.0	0.0
	Dependent	67%	12.0	0.0
	Avoidance	83%	10.0	0.0

Aggressive/Defensive Behaviors		Percentile Score	Raw Score	Standard Deviation
	Oppositional	79%	10.0	0.0
	Power	75%	14.0	0.0
	Competitive	76%	8.0	0.0
	Perfectionistic	50%	10.0	0.0

Text regarding the benchmark scores along the leadership strategy scales is provided. These results are based on a sample of approximately 320 focal managers described by approximately 2,220 others.

Highlighting largest self/rater discrepancies
The largest discrepancies between the focal manager's impact as reported by others and his or her self-reported ideal impact are highlighted by comparative profiles as well as by narrative descriptions. Self/rater discrepancies along the leadership strategies are highlighted by bar charts.

Item-level feedback
Item-level results along all of the L/I scales are reported in tables. Item-level results for the effectiveness scales are also presented in grid/plot form.

Highlighting high/low items and scales
The top 2 highest scores along the 12 impact on others scales are identified in the feedback report as primary and secondary behavioral impact.

Comparison to ideal
Comparisons are drawn between the impact that a manager currently has on others (as reported by others) and the impact that the manager would ideally like to have (as reported by the manager). In addition to comparative profiles, the largest gaps between the current and ideal impact on others are highlighted by narrative descriptions.

SUPPORT AND DEVELOPMENTAL MATERIALS

Support for Participant

Development and planning guide
Included in the feedback report received by participants.

Vendor hotline
Participants can contact Human Synergistics/Center for Applied Research by phone (847-590-0995), fax (847-590-0997), or e-mail (info@hscar.com), or they can contact Human Synergistics International by phone (800-622-7584), fax (734-459-5557), or e-mail (info@humansyn.com).

Summary worksheets
Included in the feedback report received by participants.

Support for Trainer

Trainers' guide/manual
Guidelines for administering L/I are available. An expanded trainer's manual is under development.

Workshop
Human Synergistics' Training Leader's Workshop includes an introductory session on L/I.

Supplemental norms
Composite reports for all managers participating in a particular L/I program are available.

Supplemental materials from the vendor
Other materials that would be useful to trainers include the *Organizational Culture Inventory Leader's Guide* and the *Life Styles Inventory Leader's Guide*.

Certification Requirement

Human Synergistics/Center for Applied Research does not require certification to purchase or give feedback on L/I.

Scoring Process

Completed surveys can be collected internally by the client organization and then mailed to Human Synergistics International or Human Synergistics/Center for Applied Research. Alternatively, envelopes can be provided so that those who are completing the surveys can mail them directly to Human Synergistics International or Human Synergistics/Center for Applied Research. Approximately 7 to 10 days should be allowed for managers and others to complete and return their inventories. Average turnaround time for scoring and preparation of the feedback report is currently 10 to 14 working days.

OTHER CONSIDERATIONS

Cost

Pricing for L/I is as follows:

Leadership/Impact Kit includes 1 Self Report inventory, 8 Description by Others Inventories, scoring, and feedback report.	$175

Additional Description by Others Inventories includes 1 Description by Others Inventory and scoring.	$ 10
Composite Report	$100

Length of Instrument

The L/I Self Report inventory consists of 156 items and takes approximately 20 to 25 minutes to complete. The L/I Description by Others inventory consists of 169 items and takes approximately 20 to 30 minutes to complete.

L/I Bibliography

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LEADERSHIP PRACTICES INVENTORY (LPI)

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http://www.pfeiffer.com

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Copyright Dates: 1988, 1990, 1992, 1997

Statement of Purpose

The Leadership Practices Inventory (LPI) is based on research into the everyday actions and behaviors of exemplary leaders at all levels in a variety of settings. This research identified 5 practices that were common to most extraordinary leadership achievements. When performing at their best, leaders challenge, inspire, enable, model, and encourage. The LPI helps discover to what extent managers have incorporated these 5 practices into their everyday behavioral repertoire (Kouzes & Posner, 1995).

Target Audience

The LPI is intended for managers and supervisors. A version of the LPI is available for individual contributors, as is a version for high school and college students.

Feedback Scales

The LPI has 5 scales, each containing 6 items.

Challenging the Process
Involves searching for opportunities and experimenting. Sample item: I take the initiative to overcome obstacles even when outcomes are uncertain.

Inspiring a Shared Vision
Involves envisioning the future and enlisting others. Sample item: I show others how their long-term interests can be realized by enlisting in a common vision.

Enabling Others to Act
Involves strengthening others and fostering collaboration. Sample item: I give people a great deal of freedom and choice in deciding how to do their work.

Modeling the Way
Involves setting an example and planning small wins. Sample item: I set a personal example of what I expect from others.

Encouraging the Heart
Involves recognizing contributions and celebrating accomplishments. Sample item: I praise people for a job well done.

Response Scale

Respondents rate how frequently the manager uses each behavior, using the following options:

1 = Almost Never
2 = Rarely
3 = Seldom
4 = Once in a While
5 = Occasionally
6 = Sometimes
7 = Fairly Often
8 = Usually
9 = Very Frequently
10 = Almost Always

INSTRUMENT DEVELOPMENT

Origin of Items: Research

The instrument is based on Kouzes and Posner's (1995) research. In the early stages, the authors asked managers attending a variety of management-development programs to describe their personal best experience as a leader—an experience in which they accomplished something extraordinary in an organization; an experience in which they felt everything came together. More than 780 managers completed these open-ended surveys. A more extensive

(12 to 15 page) and detailed, but still open-ended, survey was completed by more than 1,200 additional managers. In addition, in-depth interviews were conducted with 42 middle- to senior-level managers and their subordinates in a wide variety of public- and private-sector organizations. The various case studies were content-analyzed by the authors and then validated by 2 separate outside raters. By 1995, this research had been expanded to include 60,000 leaders and constituents.

Development of Feedback Scales

A factor analysis of the 30 items resulted in 5 factors that were consistent with a priori expectations, and accounted for 60% of the variance. More than 80% of the behaviors and strategies described in the personal best surveys loaded on these 5 factors. The stability of these factors was tested by analyzing data from different subsamples. In each case, the factor structure was similar to the one derived using the entire sample (*N*=2,876). Currently, the authors' LPI database contains more than 100,000 respondents.

Reliability

Test-retest

The test-retest sample was a sample of 157 MBA students who were employed full-time and attending graduate school on a part-time basis. More than 50% had supervisory experience; 40% were women. Coefficients ranged from .93 for the scales Challenging the Process and Encouraging the Heart to .95 for the scale Modeling the Way.

The test-retest reliability was rechecked in 1990 with a sample of 93 MBA students with similar demographic characteristics. Coefficients were in the .93 and above range.

Internal consistency

Cronbach's alphas on the norm base (*N*=21,159) ranged from .79 for Challenging the Process to .90 for Encouraging the Heart. The alphas for self-ratings ranged from .70 (Modeling the Way) to .86 (Encouraging the Heart); the alphas for ratings by others ranged from .80 (Challenging the Process) to .91 (Encouraging the Heart).

Interrater

Self scores are generally higher than rater scores on the LPI, although there is no statistically significant difference for the Modeling the Way and Encouraging the Heart scales. The range of scores for ratings by others is generally greater than on the LPI-self.

Validity

The authors developed an independent measure of leadership effectiveness, containing 6 Likert-type items on 5-point scales. The items asked about the extent to which the manager met the job-related needs of subordinates, built a committed work group, and influenced upper management. Additional items gauge the extent to which the respondents are satisfied with the leadership provided by the manager, believe that the manager's leadership practices are appropriate, and feel empowered by the manager. Coefficient alpha for this effectiveness scale was .98. The test-retest reliability over 10 days for a sample of 57 MBA students was better than .96. The effectiveness scale was found not to be related to social desirability.

Two analyses were carried out using the LPI scores and the effectiveness scale data. First, stepwise regression, using the LPI-other scale scores as independent variables and the effectiveness score as a dependent variable, produced a significant regression equation, which explained 55% of the variance in perceived effectiveness. Second, discriminant function analysis was used to test the degree to which the LPI would predict membership in the top and bottom third of managers on the effectiveness scale. In this study, 85% of the LPI sample was used to create the discriminant function, with the remaining 15% used to create a holdout sample. The discriminant function correctly classified 93% of the known cases and 78% of the holdout sample. With the middle third of the group included, the discriminant function was able to correctly classify 71% of the cases in the known sample and 68% in the holdout sample. All results were statistically significant (Posner & Kouzes, 1993).

A study by McNeese-Smith (1996) focused on the relationship between leadership behaviors as measured by the LPI and 3 dependent variables: productivity, job satisfaction, and organizational commitment in followers. Job satisfaction and organizational commitment were assessed using well-established measures; the productivity scale was developed by the author. Managers and their subordinates from 2 hospitals comprised the sample: 41 department managers (100% response rate) and 471 of their direct reports (77% response rate) returned completed questionnaires. Significant relationships were found between the leadership practices of department managers, as perceived by their subordinates, and the subordinates' levels of job satisfaction, organizational commitment, and productivity. Stepwise regression revealed that the various leadership practices had differential impacts upon the dependent variables. Variance in productivity was accounted for mostly by the leadership practice of Modeling the Way. Enabling Others to Act accounted for the greatest amount of variance in job satisfaction. Organizational commitment was best explained by Challenging the Process, Inspiring a Shared Vision, and Enabling Others to Act.

Other Research

Social desirability

Tests were conducted using the Marlowe-Crowne Personal Reaction Inventory. The sample included 30 middle-level managers (Kouzes & Posner, 1988). None of the correlations was significant.

Male/female comparison
The only significant difference found between male and female managers was on the Encouraging the Heart scale, where females self-reported higher frequencies of this practice.

Public/private sector comparison
No significant differences between scale scores of senior executives were found in these sectors.

Changes as a result of training
Preliminary research using a pre- and post-test administration showed an average of 15% increase in leadership behaviors (as measured by the LPI-other) 10 months after a week-long leadership development program.

A Caution Statement on Misinterpretations

The Leadership Practices inventory (LPI) was designed for developmental purposes with individuals rather than for use by organizations in selection, compensation, promotion, or performance assessment decisions. When used as a research instrument it has been shown to effectively differentiate between high- and low-performing managers at an aggregate level rather than at an individual level. It accounts for significant levels of variance in managerial effectiveness but does not, nor could any instrument, explain completely why some people are more or less effective as leaders. In a developmental context, LPI data provide a baseline measure of an individual's behavior as a leader, and suggests that engaging more frequently in such behaviors than currently done (regardless of level) will result in more positive outcomes for leaders as well as their teams/organizations. There is no information indicating that too frequent engagement in these leadership behaviors will result in harmful outcomes.

The LPI provides for confidentiality of responses from others, especially with the use of the LPI computer scoring software. When used as a 360-degree-feedback instrument, there must be at least 2 responses per respondent category (e.g., co-worker) before feedback by respondent category is provided (the default option places 1 respondent per category in the "other" category).

International Use

Translations
The LPI has been translated into French and Spanish.

International norms
Norms are available for Australian, Canadian, and Japanese users.

Internationally tested for validity/reliability
No significant differences between self-report scale scores of Australian and American middle-level managers were found. Internal reliabilities with the Australian sample were all .72 or higher. Additionally, few significant differences have been found across various other ethnic and cultural groups, including African, Hispanic, Asian, French, and British.

CHARACTERISTICS OF FEEDBACK

Type of Feedback Display: LINE GRAPH

The LPI can be self-scored. Computer-scoring software is also available. The feedback report in the self-scoring version provides 6 pages of data. The first page focuses on the 5 scales, providing the self-rating on each scale, the mean score and standard deviation of the ratings of others on each scale, and the others' ratings for each of the scales. The next 5 pages give the same types of information for the items within each scale.

Grids and line graphs are filled in by respondents at the item level; grid totals (sum of all items x all raters) equal the scale scores. Line graphs are also plotted by respondents for the scale scores of self and others. The scale scores are superimposed on norms to produce percentile scores.

The feedback report in the computer-scoring version provides additional breakouts of the data and analyses (17 pages long).

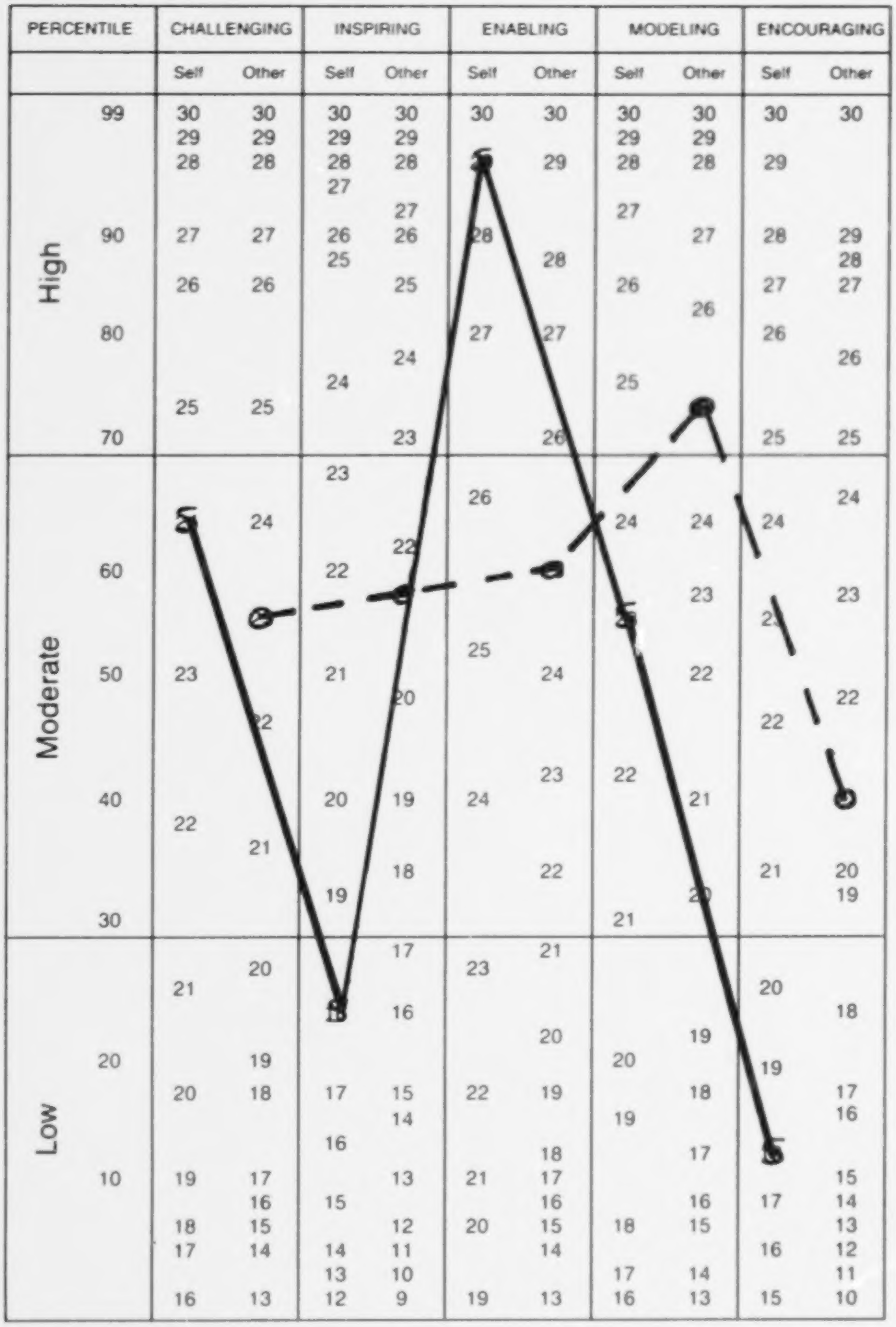
Breakout of Rater Responses

Scores from all possible observer groups (superiors, peers, and subordinates) are presented separately in the feedback.

Feedback Delivery Strategies

Comparison to norms
Managers' scores are plotted as percentile scores using norms. LPI norms are based on the results of all leaders who had taken the LPI through early 1990. The norms are broken down into self and other norms.

Highlighting largest self/rater discrepancies
Available as an option with the scoring software.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Item-level feedback
Feedback on all LPI items is provided.

Highlighting high/low items and scales
Available as an option with the scoring software. The summary page from the LPI scoring software indicates the respondent's self score along with his or her average score from others, standard deviations, and scores from each of the others who completed the instrument. Asterisks highlight: (1) significant differences between self scores and the average scores from others, and (2) standard deviation scores greater than 2. Also included is a list of the 5 most-frequent leadership behaviors according to the ratings of others, as well as the 5 least-frequent behaviors.

SUPPORT AND DEVELOPMENTAL MATERIALS

Support for Participant

Development and planning guide
Leadership Practices Inventory (LPI): Participant Workbook (87 pages) provides managers with detailed information on the theory, scoring, and interpretation of the LPI. It also contains several worksheets including checklists that suggest how one might improve leadership skills. Managers are asked to record their thoughts about the meaning of self/other discrepancies, how to further develop in each area, and where opportunities may exist to develop specific skills. Additionally, a worksheet encourages managers to list strengths and areas of comfort, areas of discomfort that may need improvement, and specific actions to be taken in the near future to improve leadership ability.

Workshop
Half-day and full-day workshop designs are provided.

Post-assessment
The LPI may be retaken in 3 to 6 months and the results compared to the previous results to check on progress.

Summary worksheets
See the "Development and planning guide" section above.

Support for Trainer

Trainers' guide/manual
The Leadership Practices Inventory (LPI) Facilitator's Guide includes information about the conceptual leadership framework as well as information about the development of the instru-

ment and its psychometric properties. It also includes abstracts of LPI theses, dissertations, and papers. The guide itself is a binder that contains handouts and transparencies for the trainer, a copy of the Participant's Workbook, and a copy of the new LPI Scoring Software. Also in the guide are information on several workshop feedback designs, with set-by-step instructions, as well as pages of practical suggestions for how participants can develop their skills with each of the 5 leadership practices.

Workshop
A train-the-trainer workshop called The Leadership Challenge Workshop™ is available from The Tom Peters Group/Learning Systems and features the LPI.

Supplemental norms
Summary data for groups and organizations can be obtained through the vendor.

Video
A video, *The Leadership Challenge* (26 minutes), is available from the vendor. An overview presentation of the authors' leadership model and its subsequent behavioral practices are shown. It introduces 4 managers/leaders with inspirational stories and shows how each of these individuals incorporates specific practices to inspire and motivate others toward extraordinary achievements. The video provides clear examples of the practices identified on the LPI.

The video *Leadership in Action* (15 minutes) provides another look at the Kouzes and Posner leadership framework by profiling one leader's extraordinary accomplishment from both the leader's perspective and others involved in the situation. All 5 practices are illustrated through commentaries.

Supplemental materials from the vendor
The Leadership Challenge: How to Get Extraordinary Things Done in Organizations (Kouzes & Posner, 1995) defines practices and behaviors that develop leadership. These findings are based on research on managers who led others to outstanding accomplishments. The book is available through the vendor.

Certification Requirement

Certification is not required to use the LPI. It can be used alone for self-development and can be self-scored and interpreted fairly easily. It is recommended, however, that it be used in connection with a management development professional who is familiar with Kouzes and Posner's (1995) model of leadership.

Scoring Process

The LPI can be self-scored by the person who is rated. That person transfers his or her self-ratings on items and the ratings of others on items to 5 grids, 1 for each scale. Scale scores are computed by totaling item values on each grid.

A Windows-based scoring program also comes with the facilitator's guide. The LPI Scoring Program generates a 17-page feedback report for each participant. Summary data for the group and organization can also be generated from the scoring program. The computer software requires minimal computer knowledge and includes online help features and written documentation.

Complete and confidential scoring services are also provided by The Tom Peters Group/ Learning Systems.

OTHER CONSIDERATIONS

Cost

LPI-Self includes participant workbook	Price (ea.)
1-15	$12.95
16-35	$12.30
36-50	$11.65
51+	$11.00

LPI-Observer	Price (ea.)
1-50	$3.95
51-100	$3.75
101-300	$3.55
301+	$3.35

Length of Instrument

The LPI contains 30 behavior-based statements. It takes less than 10 minutes to complete the self or the observer form.

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Copyright Dates: 1973, 1976, 1981, 1982, 1987, 1989

Statement of Purpose

"The product of extensive research into the behavioral effects of thinking patterns and self-concept, the LSI is based on the knowledge that in order to understand and change behavior, we must first examine the feelings and thoughts that underlie and motivate everything we say and do. The LSI was developed to assist individuals in identifying and understanding their thinking patterns and self-concept. Using this valuable information, LSI respondents can elect to change the way they think about themselves and others, and in turn improve the effectiveness of their behavior" (Human Synergistics, Inc., 1989, p. 7).

Target Audience

The LSI can be used by people at all levels in any kind of organization.

Feedback Scales

There are 12 thinking styles derived from the ratings of single adjectives (e.g., Thoughtful or Realistic) or phrases (e.g., Easily Influenced by Friends or Overestimates Ability); 20 items make up each style. The styles are broken down into 3 general "orientations": constructive styles, passive/defensive styles, and aggressive/defensive styles.

Humanistic-Encouraging
Interest in people, tendency to care about others, ability to encourage others to improve. Individuals scoring high on this scale have unconditional positive regard for others. Sample item: Willing to take time with people.

Affiliative

Degree of commitment to forming and sustaining satisfying relationships. People scoring high on this scale tend to be most effective and comfortable when they are in the company of others. Sample item: Thinks people are more important than things.

Approval

Need to be accepted by others to increase or sustain feelings of self-worth. People scoring high on this scale typically work too hard to gain the approval of others. Sample item: Agrees with everyone.

Conventional

Tendency to act in a conforming way. People who score high on this scale are preoccupied with maintaining a low profile and blending in with a particular environment to avoid calling attention to themselves. Sample item: Concerned with what others think.

Dependent

Degree to which one feels his or her efforts do not count. People who score high on this scale tend to feel helpless in some areas of life and may believe their efforts make little difference in the outcome of things. Sample item: Says what's expected.

Avoidance

Tendency to use the defensive strategy of withdrawal. People who score high on this scale withdraw by hiding their feelings or by shying away from situations they find threatening. Sample item: Leaves decisions to others.

Oppositional

Tendency to use the defensive and aggressive strategy of disagreeing with others and to seek attention by being critical and cynical. People who score high on this scale typically choose to verbally assault others to gain feelings of importance and self-satisfaction. Sample item: Usually against things.

Power

Tendency to associate self-worth with the degree to which one can control and dominate others. People who score high on this scale can be domineering and like to feel in charge at all times. Sample item: Runs things by self.

Competitive

Need to establish a sense of self-worth through competing against and comparing oneself to others. People who score high on this scale tend to focus more on winning than on the process of achieving excellence. Sample item: Gets upset over losing.

Perfectionistic

Degree to which one feels a driven need to be seen by others as perfect. People scoring high on this scale tend to seek recognition from others by making sure that some or all areas of their lives are flawless. Sample item: Doesn't seem to need others.

Achievement
Interest in, as well as proficiency at, attaining high-quality results on challenging projects. People who score high on this scale tend to feel positively challenged by what they confront in life. Sample item: High level of aspiration.

Self-actualization
A way of thinking that represents the highest form of personal fulfillment. People scoring high on this scale have a great deal of confidence in themselves and their ability to make things better. Sample item: Very aware of own feelings.

Response Scale

Respondents rate each item, using a 3-point scale, according to how accurately it describes the person being rated. The responses on the self form (LSI 1) are:

Like me most of the time
Like me quite often
Essentially unlike me

The responses on the others form (LSI 2) are equivalent but reflect the different point of view.

INSTRUMENT DEVELOPMENT

Origin of Items: Theory

The life styles fall within 4 general areas of concern, a structure that has its origins in the distinction between security and satisfaction and the distinction between task and people orientations. Security/satisfaction is derived from Maslow's (1954) concept of lower- and higher-order needs. People/task is derived from Stogdill's (1963) distinction between consideration and initiating structure; Blake and Mouton's (1964) distinction between concern for people and concern for production; and Katz, Maccoby, and Morse's (1959) distinction between employee-centered and production-centered managerial behavior. Taken together, these generate 4 general areas of concern: people and satisfaction, people and security, task and satisfaction, and task and security.

In order to maximize content validity, each domain or life style was conceptually stratified into its major components to reflect ways in which the life styles (or closely related variables) were defined in the existing literature. Multiple items were then generated to capture the "shades of meaning" associated with each strata (for example, the achievement style includes subdomains measuring the attainment of self-set goals, concern for understanding why things happen, and doing things well). Finally, potential items were pretested in counseling situations to identify those that best reflected the domains being measured.

Development of Feedback Scales

The 12 scales load on 3 factors that together explain approximately 70% of the variance in the style measures. These factors reflect People/Security, Satisfaction, and Task/Security. The basic factor structure is consistent across the 2 forms of the instrument (LSI 1 and LSI 2).

Reliability

Test-retest
Currently, no data are available.

Internal consistency
Split-half reliability coefficients for a sample of 354 managers range from .90 for the Conventional and Dependent scales to .95 for the Avoidance and Self-actualizing scales.

Alpha coefficients (for a sample of 1,000 respondents randomly selected from a database of 5,000 people who have taken LSI) range from .80 for the Affiliative scale to .88 for the Avoidance, Achievement, and Self-actualizing scales.

Interrater
An analysis of variance was completed on a sample of 556 managers (all levels) from geographically dispersed divisions of 7 different organizations that were participating in management development programs. A total of 2,615 "others" completed descriptions of those managers. An F-statistic significant at the .0001 level for all 12 styles indicates that the variance in responses within the groups of others is smaller than the variance between these groups of respondents. The eta-squared statistics range from .33 for the Approval and Oppositional styles to .47 for the Competitive style. The eta-squared values for the 3 factors range from .35 for the Satisfaction orientation to .46 for the Task/Security orientation, suggesting that the latter styles are assessed by others in a more consistent manner than are the former.

Validity

A study of 1,000 individuals found a modest but significant direct relationship between personal orientations (3 LSI factors) and the number of strain symptoms reported. The variance in the number of strain symptoms explained by personal orientations (6%) was only slightly less than that explained by life events (8%) and greater than that explained by background variables (3%).

A Caution Statement on Misinterpretations

The LSI is designed and marketed as a management development tool. The publisher has collected normative comparison data using accepted, scientific practices. Therefore, Human Synergistics feels that use of the LSI to provide feedback information about how a manager is performing, in comparison to the population of managers, is appropriate. However, the LSI is not validated nor appropriate for making selection, recruitment, or performance evaluation decisions. Likewise, the LSI is not intended to identify static traits but rather patterns of behavior that are modifiable. This means that any results from the LSI should be viewed as a "snapshot" of the manager's behavior patterns, at the time he or she completed the assessment. Furthermore, the Human Synergistics model stresses that these "typical" behavior patterns can be changed by the individual.

International Use

Translations
The LSI is translated into Dutch, Finnish, French Canadian, German, and Spanish.

International norms
Norms are available for Finland, Germany, and United Kingdom.

Internationally tested for validity/reliability
The translated instruments have been checked for grammatical accuracy but no cross-cultural validation has taken place.

CHARACTERISTICS OF FEEDBACK

Types of Feedback Display: CIRCUMPLEX and NARRATIVE

The 12 styles of thinking are positioned on a circumplex that reflects their degree of association with each other (styles positioned next to each other are more closely related to each other than they are to styles positioned further away). Each of the 12 styles is identified as either constructive and effective or defensive and potentially self-defeating.

The narrative portion of the feedback provides detailed information on the participants' management patterns, potential problem areas that are often associated with their management style, and recommendations for improvement.

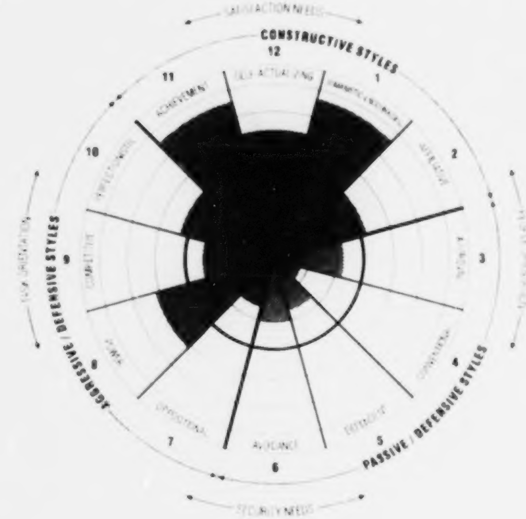
Life Styles Inventory

Samples

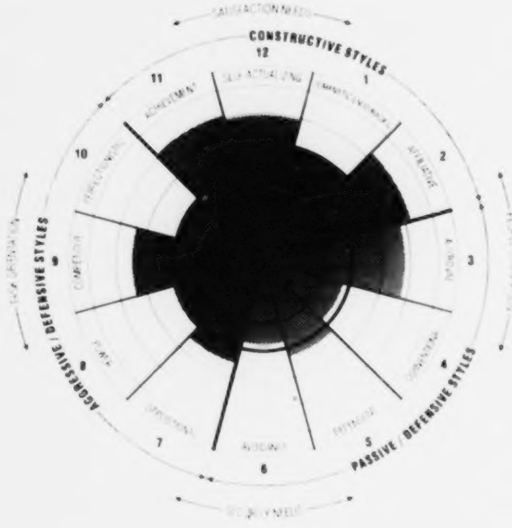
Sample Report

June, 1997

Self-Description



Description by Others
(4 raters)



Developed by: J. Clayton Lafferty, Ph.D.
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human synergistics INTERNATIONAL

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Breakout of Rater Responses

The self-report feedback contains only the manager responses. Feedback from the others who rate the manager is combined and circumplexed separately from the self-report, unless the client requests that they be broken out.

Feedback Delivery Strategies

Comparison to norms
Respondents compare their scores with those of all other managers via a percentile score printed on concentric circles within the circumplex. Low (below 25th percentile), medium (25th-74th percentile), and high (at or above 75th percentile) scores are differently shaded to facilitate interpretation.

The LSI is normed on a sample of 9,207 primarily white (79.3%) adult males (67.6%) and females (17.1%).

Highlighting largest self/rater discrepancies
The LSI highlights discrepancies between participants and their raters by listing whether the scores are confirmed strengths (self-ratings and other ratings are high), blind spots (self-ratings are high but other ratings are low), stumbling blocks (self-ratings and other ratings are low) or unrecognized strengths (self-ratings are low but other ratings are high).

Item-level feedback
Item-level feedback is provided in the personalized feedback report.

Highlighting high/low items and scales
The highest and lowest scores are provided in the feedback report.

SUPPORT AND DEVELOPMENTAL MATERIALS

Support for Participant

- *Development and planning guide*
  The *Life Styles Inventory Self-development Guide* accompanies the LSI and is a very complete and readable development guide. It includes sections on how to use the instrument, its measurements, and descriptions of the 12 styles. Each style description contains details on: (1) what the scale measures; (2) the self-concept and basic life stance of people who score high on the scale; (3) characteristic behaviors of high scorers; (4) constructive, positively phrased suggestions for those who score low; (5) how the scale relates to scoring patterns on other scales; (6) how to become more effective in this area (i.e., how to develop skills associ-

ated with high scores); and (7) descriptions of what the benefits of improvement will be. Each section on a style ends with a humorous cartoon illustrating the typical stance or behavior of someone high on the scale.

The guide ends with a section called "The Challenge of Change," which addresses the issues involved in personal change, guidelines for moving from thought to action, and a 10-step worksheet for self-improvement. A reading list is also included.

The *LSI Profile Summary Cards* are a 36-card deck that provides an "at-a-glance" interpretation of LSI scores.

Post-assessment
Human Synergistics International offers post-assessment with the LSI.

Vendor hotline
Human Synergistics International has a toll-free number participants can call for supplemental information and assistance.

Summary worksheets
Worksheets are provided in the development and planning guide.

Support for Trainer

Trainers' guide/manual
The *Life Styles Inventory Leader's Guide* is a comprehensive 200-page guide including administration, scoring, interpretation, program design, and research. This is a loose-leaf notebook, enabling Human Synergistics International to send user scoring, design, and research updates for inclusion in the guide as they become available.

Workshop
Human Synergistics International offers a workshop that introduces clients to their products.

Supplemental norms
The *Life Styles Inventory Leader's Guide* contains 26 comparison profiles including the ideal profile (Self-actualizing is the primary style, and Achievement and Humanistic-Encouraging are the backups).

A Group Report is also available.

Video
A video offering suggestions on giving feedback is available.

Certification Requirement

Human Synergistics International does not require certification to purchase or give feedback on the LSI.

Scoring Process

The LSI can be hand-scored or scored by Human Synergistics International. To facilitate hand scoring of either LSI 1 or LSI 2, a scorer's worksheet is provided.

If self-scored, respondents transfer their LSI scores to a circular graph (circumplex), creating a profile of their current thinking and behavior. Total scores are converted to percentile scores on this chart, based on data from 9,207 other individuals. For purposes of confidentiality, LSI 2 should be scored by Human Synergistics International.

A scannable version of the LSI is available for scoring through Human Synergistics International. A fax-back form for the LSI is also available to decrease the turnaround time. Turnaround time (once all scannable forms are received) is approximately 1 week.

Finally, a software solution for those wishing to receive a narrative report (about 60 pages each for LSI 1 and LSI 2) is available. This option, called STYLUS®, must be returned to Human Synergistics International for scoring, or the scoring software can be purchased through the vendor.

OTHER CONSIDERATIONS

Cost

The LSI 1 (rating by self) can be used alone or in conjunction with the LSI 2 (rating by others). The LSI 2 can be employed after use of the LSI 1, thereby functioning as a next step.

LSI 1 Full Kit
Includes 1 each of: Self-description inventory, Self-development guide, and Profile Summary Cards. $29.

LSI 1 Basic Kit
Includes 1 each of: Self-description inventory and Self-development guide. $21.

LSI 1 & LSI 2 Basic Kit. $62.

LSI Profile Summary Cards. $9.

LSI Leader's Guide. $125.

LSI 2 Kit. $51.

LSI 1 & LSI 2 Full Kit
Includes 5 inventories for "others," 1 Self-development guide, scorer's worksheet and instructions, and profile supplement. $70.

STYLUS® is available at a cost of $125 for each LSI 1 and LSI 2, or $240 for the combined kit. For those organizations wishing to score on-site, the scoring software is available for $1,500. For those who have purchased the scoring software, STYLUS® 1 and 2 assessment disks can be purchased for $140.

Length of Instrument

The LSI is a 240-item inventory that takes approximately 20 to 30 minutes to complete.

An open architecture allows addition of items at client request.

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MANAGER VIEW/360™

Vendor:	Organizational Performance Dimensions 137 Strand Street Santa Monica, CA 90405 (800) 538-7628 http://www.opd.net
Author:	Kenneth M. Nowack, Ph.D. Organizational Performance Dimensions

Copyright Dates: 1994, 1997

Statement of Purpose

MANAGER VIEW/360 provides multi-rater feedback on 20 critical managerial competencies.

Target Audience

The instrument is designed to be administered to supervisors, managers, and executive leaders.

Feedback Scales

MANAGER VIEW/360 provides feedback on 20 scales. Each scale contains 5 items.

COMMUNICATION SKILLS

Listening
Ability to be attentive and understand the verbal communications of others. Sample item: Is willing to take the time to understand and listen to employees.

Two-Way Feedback
Ability to keep others informed in a timely manner. Sample item: Encourages a climate in which employees feel free to openly share their thoughts and feelings.

Written Communication
Ability to express written thoughts and ideas in a clear and concise manner. Sample item: Uses written communications effectively and appropriately.

Oral Communication
Ability to convey oral thoughts and ideas in a clear and concise manner. Sample item: States complex information and thoughts simply and clearly.

Oral Presentation
Ability to present individual and organizational viewpoints to groups in a clear and persuasive manner. Sample item: Delivers oral presentations that are persuasive, clear, and logically organized.

Vision/Goal Setting
Ability to share a common vision and develop strategic goals for the organization. Sample item: Establishes and communicates organizational, departmental, and team goals and performance standards.

TASK MANAGEMENT SKILLS

Planning/Organizing/Scheduling
The ability to set realistic and measurable goals and allocate resources (people, budget, materials, etc.). Sample item: Effectively schedules work activities and tasks.

Delegation
The ability to assign work, clarify expectations, and define how individual performance will be measured. Sample item: Transfers the necessary authority to employees to ensure completion of delegated tasks, assignments, and projects.

Administrative Control
Ability to develop procedures to evaluate and monitor job activities and tasks on an ongoing basis. Sample item: Establishes effective mechanisms to ensure that work is done on time and with high quality.

Performance Evaluation/Appraisal
Ability to provide ongoing feedback and conduct timely and effective performance reviews. Sample item: Focuses on both performance strengths and areas to be developed during employee appraisal meetings.

Performance Management
Ability to provide others with regular and clear feedback on their performance and offer support when individuals are confronted with problems. Sample item: Clearly establishes and communicates performance goals and standards with employees.

Recognizing/Rewarding Performance
Ability to reward and recognize performance in a timely and appropriate manner. Sample item: Shares successes and discusses effective performance with others.

INTERPERSONAL SKILLS

Team Building/Development

Ability to create and develop motivated, cohesive, and high performance teams. Sample item: Develops cooperation rather than competition among employees, groups, and work teams.

Sensitivity/Diversity

Ability to take actions that demonstrate consideration for the feelings and needs of others. Sample item: Develops and maintains supportive, friendly, and sensitive interpersonal relationships with all employees.

Negotiation/Conflict Management

Ability to negotiate and effectively resolve interpersonal differences with others. Sample item: Resists acting defensively and keeps an open mind when others disagree with him or her.

Coaching/Employee Development

Ability to coach, train, and develop others. Sample item: Provides adequate support and training to employees.

Leadership/Influence

Ability to utilize appropriate interpersonal styles and approaches in facilitating a group towards task achievement. Sample item: Communicates a vision of the organizational future and inspires commitment and support towards this vision from others.

Employee Involvement/Participation

Ability to involve employees in organizational planning, decision making, and problem solving processes. Sample item: Solicits and values the thoughts, opinions, and ideas of employees.

PROBLEM-SOLVING SKILLS

Strategic Problem Analysis

Ability to analyze a situation, identify alternative solutions, and develop specific items. Sample item: Creates opportunities to be innovative and create new ideas and concepts.

Decisiveness/Judgment

Ability and willingness to make high-quality decisions. Sample item: Considers the consequences of decisions.

Response Scale

Respondents indicate how frequently the observed person practices the skill or behavior described in each item, using a 7-point scale:

1 = To an Extremely Small Extent
2 = To a Very Small Extent
3 = To a Small Extent
4 = To a Moderate Extent
5 = To a Large Extent
6 = To a Very Large Extent
7 = To an Extremely Large Extent
NA = Not Observable or Not Applicable

INSTRUMENT DEVELOPMENT

Origin of Items: Research

MANAGER VIEW/360 was developed in early 1985 and was originally titled the *Management Practices Questionnaire*. It was based on a job analysis of supervisory and managerial positions in several large service, manufacturing, and aerospace companies. Using the results of the job analysis, items were rationally constructed to measure the full range of supervisory and managerial skills.

Development of Feedback Scales

In the job analysis, job incumbents were interviewed regarding the major tasks associated with their positions. Based on these interviews, a task activity questionnaire was developed that summarized the importance and frequency of each task for the targeted position. These questionnaires were distributed to incumbents and the results were analyzed. Results indicated there were 4 areas critical to supervisory and managerial performance: (1) Interpersonal, (2) Communication, (3) Administration, and (4) Decision Making. From these 4 areas, 20 scales were derived, each measured by 4 items.

The initial version was piloted with a group of 85 managers from 2 organizations. Analyses including item-scale correlations, breakouts by demographic variables, and descriptive statistics were run to investigate the psychometric properties of the instrument. Based on these results, the item content was revised, resulting in the 1994 100-item version. In 1996, another psychometric revision occurred as part of a collaborative partnership with Advanced Teamware, Inc.

Reliability

Test-Retest

The average test-retest reliability over a 3-month period across all 20 scales was .65.

Internal consistency

Cronbach's alphas were calculated for each of the 20 scales. These coefficients ranged from .71 (Planning and Organizing) to .91 (Recognizing/Rewarding).

Interrater

Not currently available.

Validity

A criterion-related validity study of MANAGER VIEW/360 was conducted using assessment center ratings as criteria (Nowack, 1997). Self and supervisor ratings for 144 managers were found to be significantly related to overall ratings from the assessment center ($r = .25$), and to ratings on an in-basket exercise ($r = .28$).

Other Research

A factor analysis of ratings on the 20 MANAGER VIEW/360 scales indicated that 3 factors accounted for 81% of the variance in the scales. Factor I, which accounted for 71% of the variance, included 10 scales with Sensitivity/Diversity loading highest (.87). Factor II, which accounted for 6% of the variance, included 7 scales with Administrative Control loading highest (.87). Factor III, which accounted for 4% of the variance, included 3 scales with Written Communication loading highest (.85).

A Caution Statement on Misinterpretations

MANAGER VIEW/360 was designed to provide targeted feedback to respondents across 20 managerial competencies and is most appropriately used for the supervisory, managerial, and executive job families. It is recommended that MANAGER VIEW/360 be used developmentally in supervisory and management training, career development programs, executive/management coaching, performance management, and succession development systems. Practitioners using MANAGER VIEW/360 are cautioned that multi-rater feedback processes can elicit strong emotional reactions and responses in supervisors, managers, and executives receiving feedback. Caution should be used in the possible misinterpretation of the feedback results and possible adverse emotional reactions of some individuals to feedback that does not match their self-perceptions.

Organizational Performance Dimensions (OPD) and Advanced Teamware fully subscribe to the *Standards for Educational and Psychological Testing* (APA, 1985) published by the American Educational Research Association, American Psychological Association, and National Council on Measurement in Education, and expects that the user shall rigorously observe the required user qualifications set out for each test. Organizational Performance Dimensions and Advanced Teamware recommend that users should become familiar with the contents of the standards. For a copy, please write the American Psychological Association, Order Department, 1200 Seventeenth Street, N.W., Washington, D.C. 20036. Note that the standards state:

> The test user, in selecting or interpreting a test, should know the purposes of the testing and the probable consequences. The user should know the procedures necessary to facilitate effectiveness and to reduce bias in test use. Although the test developer and publisher should provide information on the strengths and weaknesses of the test, the ultimate responsibility for appropriate test use lies with the test user. The user should become knowledgeable about the test and its appropriate use and also communicate this information, as appropriate, to others.
>
> Responsibility for test use should be assumed by or delegated only to those individuals who have the training and experience necessary to handle this responsibility in a professional and technically adequate manner.

OPD and Advanced Teamware endeavor to conform to the standards, which recommend that all assessment instruments be released only to individuals who can demonstrate that they have the knowledge and skill necessary for their effective use and interpretation. MANAGER VIEW/360 can be adequately administered, scored, and interpreted with the aid of the user's manual.

International Use

Translations

MANAGER VIEW/360 is available in Spanish.

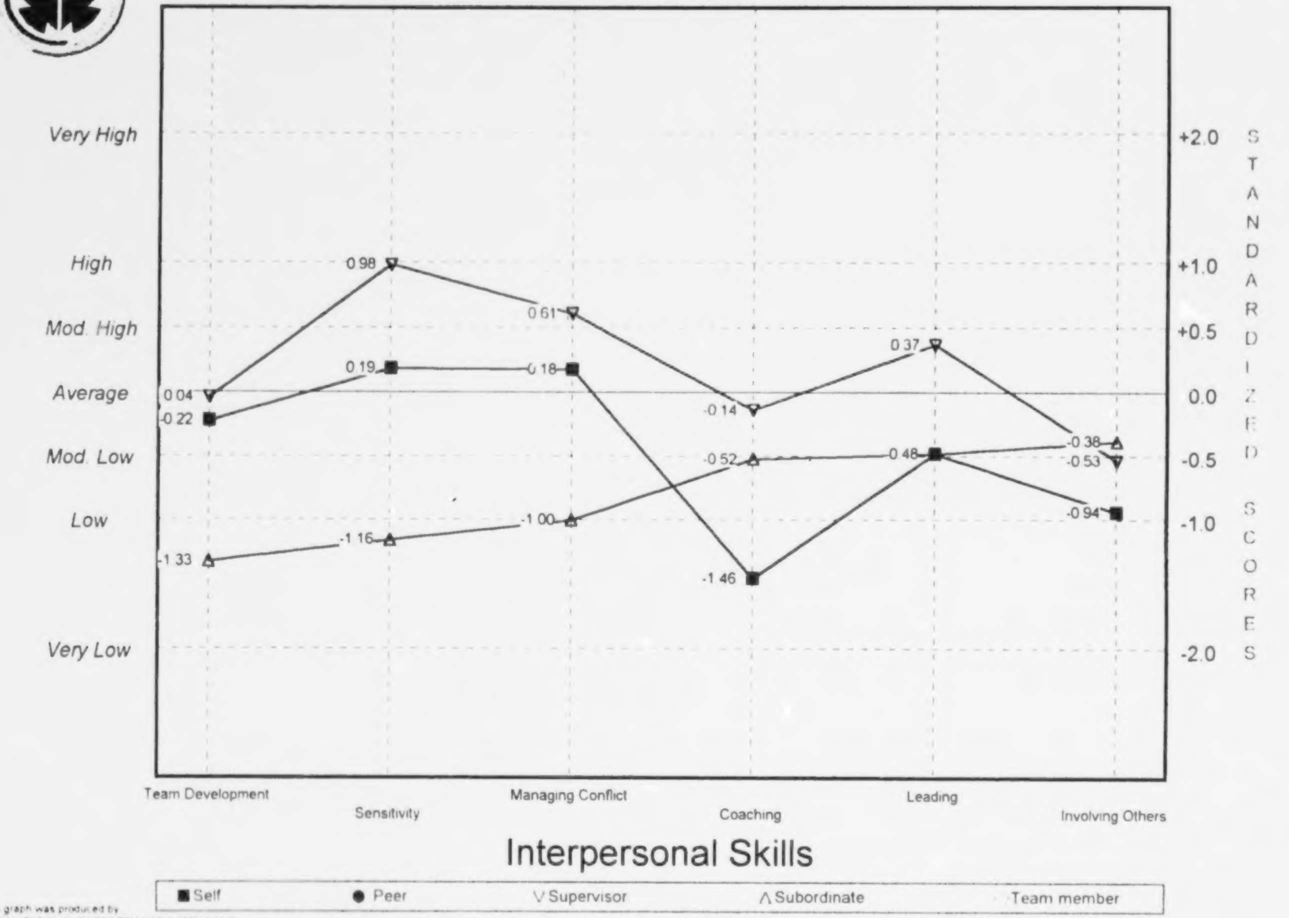
CHARACTERISTICS OF FEEDBACK

Types of Feedback Display: LINE GRAPHS and NARRATIVE REPORTS

The MANAGER VIEW/360 feedback report includes an analysis of ratings as well as developmental suggestions. There are 4 major sections to the feedback report. Section I provides 5 separate graphic profile summaries of the feedback, which compare self-ratings to the ratings of others and to the normative group. The first graphic profile provides a summary of the results for each of the 4 competency areas (Communication, Task Management,

ManagerView/360 Profile

Jane Doe (06-13-1997)



This graph was produced by
ORGANIZATIONAL PERFORMANCE DIMENSIONS
with ManagerView/360 Software
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Full-Court Press, Inc.

Interpersonal, and Problem Analysis). The next 4 graphs summarize each of the 20 scales clustered into the 4 competency areas.

Section II lists the highest and lowest rated items based on the average scores of all respondents.

While the graphs provide useful information, the key to MANAGER VIEW/360 feedback is the narrative reports. Section III provides comparisons of self-ratings to the ratings of others in a narrative context and provides developmental recommendations for each scale.

Breakout of Rater Responses

The MANAGER VIEW/360 feedback report separately breaks out all raters (peers, direct reports, bosses, and customers).

Feedback Delivery Strategies

Comparison to norms
Standard scores for each scale are displayed graphically on the feedback report.

Norms for MANAGER VIEW/360 are based on over 5,000 professionals working primarily in health care, manufacturing, and aerospace organizations. The sample is primarily male (74%), college educated (66%), and white (79%).

Highlighting largest self/rater discrepancies
The MANAGER VIEW/360 profile displays differences between self-ratings and rater feedback, and the narrative discusses these issues in detail.

Item-level feedback
Item-level feedback is presented for the 10 highest and 10 lowest rated items (see below).

Highlighting high/low items and scales
The MANAGER VIEW/360 feedback report includes the 10 highest rated items and the 10 lowest rated items in rank order.

SUPPORT AND DEVELOPMENTAL MATERIALS

Support for Participant

Development and planning guide
Section IV of the MANAGER VIEW/360 feedback report provides a development action plan for managers to use to summarize the actions they plan to take as a result of the feedback.

Workshop
A workshop for participants is available from the vendor.

Post-assessment
Available from the vendor.

Vendor hotline
Advanced Teamware, Inc., and OPD have hotlines for participants who need supplemental information and assistance.

Summary worksheets
Section IV of the feedback report provides a development plan worksheet.

Support for Trainer

Trainers' guide/manual
An administration manual is included with the MANAGER VIEW/360 software package.

Workshop
A workshop for trainers is available from the vendor.

Supplemental norms
A group report is available.

Supplemental materials from the vendor
A demo version of the MANAGER VIEW/360 software is available from Advanced Teamware, Inc.

Certification Requirement

Certification is not required.

Scoring Process

OPD will perform the report processing, or clients can purchase scoring software. The MANAGER VIEW/360 software allows clients to print questionnaires, record data, calculate results, and print text reports and graphs in-house.

OTHER CONSIDERATIONS

Cost

MANAGER VIEW/360 costs $85 per participant for each authorization using the software scoring and report system. Initial purchase of the MANAGER VIEW/360 base software system and administration manual is $299.

OPD provides scoring services at a cost of $105 per participant.

Length of Instrument

The MANAGER VIEW/360 instrument contains 100 items. Participants can complete an assessment in approximately 20 to 30 minutes.

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MATRIX: THE INFLUENCE BEHAVIOR QUESTIONNAIRE

Vendor:	Manus A Division of Right Management Consulting 100 Prospect Street South Tower Stamford, CT 06901 (800) 445-0942 Fax (203) 326-3890
Authors:	Gary Yukl, Ph.D. State University of New York at Albany Albany, NY (518) 442-4932
	Rick Lepsinger Toni Lucia Manus

Copyright Dates: 1989, 1991, 1997

Statement of Purpose

"MATRIX integrates feedback on power and influence for a complete picture of people's current behavior and potential" (Manus, 1991, p. 1.1).

Target Audience

MATRIX was designed for people at all levels, including top management and professional individual contributors.

Feedback Scales

OVERVIEW

Role Power (4 items)
Boosts potential to influence based on role in the organization. Role power is based on the individual's authority, control over resources and information, and ability to remove obstacles that get in the way of accomplishing tasks. Sample item: Has control over resources you need to do your work effectively (e.g., funds, supplies, equipment, facilities, personnel).

Expertise Power (3 items)
Boosts potential to influence based on knowledge and experience. Sample item: Has the knowledge and experience to help you solve work-related problems.

Relationship Power (3 items)
Boosts potential to influence based on personal characteristics and relationships with others. Elements of relationship power include people's admiration of, identification with, and trust in the individual. Sample item: Can be trusted to follow through on his or her commitments.

CORE TACTICS

Reasoning (5 items)
Using logical and factual evidence to persuade a person that your proposal or request is viable and likely to result in the attainment of task objectives. Sample item: Explains the reasons for a request in a clear and concise way.

Inspiring (5 items)
Making a request or proposal that arouses enthusiasm by appealing to a person's values and ideals. Sample item: Describes a proposed task, project, or change with enthusiasm and with confidence that it will succeed.

Consulting (5 items)
Seeking a person's participation in planning a strategy, activity, or change for which his or her support and assistance are desired, or being willing to modify a proposal to deal with his or her concerns and suggestions. Sample item: Asks you to help plan a task or activity that will require your support and assistance.

SUPPORT TACTICS

Recognizing (4 items)
Acknowledging a person's contributions, efforts, or accomplishments to increase his or her positive regard for you and encourage his or her cooperation. Sample item: Readily gives credit to you for your contribution to a project or idea that was successful.

Exchanging (4 items)
Offering to do something that would benefit a person in return for his or her carrying out your request. Sample item: Offers to do a specific work-related task for you in return for carrying out his or her request.

Coalition Building (4 items)
Seeking the aid of others to persuade a person to do something or using the support of others as an argument for why he or she should agree. Sample item: Mentions the names of credible people who support his or her plan or proposal.

LAST RESORT TACTICS

Establishing Authority (4 items)
Establishing the legitimacy of a request by showing that you have the authority or right to make it, or by verifying that it is consistent with organizational policies, rules, practices, or traditions. Sample item: Says that his or her request or proposal is consistent with tradition and precedent in the organization.

Pressuring (4 items)
Using demands or persistent reminders to convince a person to do what you want. Sample item: Demands that you carry out a request promptly.

Response Scale

Respondents rate how frequently the individual uses each behavior, using the following scale:

5 = He/she uses this tactic very often with me.
4 = He/she uses this tactic moderately often with me.
3 = He/she occasionally uses this tactic with me.
2 = He/she very seldom uses this tactic with me.
1 = I cannot remember him or her ever using this tactic with me.

INSTRUMENT DEVELOPMENT

Origin of Items: Theory/Research

MATRIX was developed to measure influence behaviors that are relevant for managerial effectiveness (Yukl, Lepsinger, & Lucia, 1992). In developing the items for the instrument, the authors focused on proactive behaviors that are used to influence compliance with requests and commitment to plans. They considered previous research on influence tactics and power, descriptions of successful influence tactics from the literature, and descriptions of influence behavior from critical incidents.

Four methods were used to identify categories of influence behavior: (1) factor analysis and item analysis, (2) Q-sorts, (3) revision of categories based on experience, and (4) examination of the outcomes of tactics used by managers. From these methods, the authors developed 8 influence tactics. Several of these influence tactics correspond to those from earlier studies (e.g., Kipnis, Schmidt, & Wilkinson, 1980).

Development of Feedback Scales

Data from several hundred raters were factor-analyzed. This analysis resulted in 9 orthogonal factors representing Influence Tactics: Persuasion, Exchange, Pressure, Ingratiation, Coalition, Upward Appeals, Consultation, Inspirational Appeals, and Legitimating Tactics. The results of the factor analysis were used to select items for the scales. The authors attempted to develop comprehensive factors by including a broad range of behaviors. Multidimensional items were retained if they appeared to be especially relevant. This strategy increased the overlap among factors, but the authors believe it improved the content validity of the scales.

During an early revision of MATRIX, 3 of the factors described above were renamed. Persuasion became Reasoning, Ingratiation became Recognizing, and Legitimating Tactics became Establishing Authority.

Reliability

Test-retest
Test-retest reliability was examined for the MATRIX scales in 2 studies conducted with MBA night students. With an interval of 5 weeks, correlations between 2 administrations of MATRIX for 45 students ranged from .87 for Consultation to .59 for Pressure Tactics. With a 4-week interval and 29 students, correlations ranged from .85 (Inspirational Appeals) to .64 (Legitimating Tactics).

Internal consistency
Internal consistency was computed for the MATRIX scales for 3 different samples. The first sample consisted of 709 subordinates, peers, and bosses. The second consisted of 208 subordinates of managers from a variety of companies. The third consisted of 45 MBA night students.

Alpha coefficients for scales across these studies ranged from .63 for the Ingratiation Tactics scale in the first sample to .90 for the Consultation scale in the third sample.

Interrater
Not currently available.

Validity

Two studies have examined the validity of MATRIX. In the first study, correlations between subordinate (N=506) and peer ratings (N=495) of 118 managers and 2 criterion measures were investigated. The criteria consisted of ratings of task commitment and quality of relations. Significant correlations were found with at least 1 of the criterion measures for all of the MATRIX scales.

In the second study, correlations between subordinate (N=526) and peer ratings (N=543) of 128 managers and 2 criteria were investigated. The criterion measures consisted of ratings of task commitment and managerial effectiveness. Significant correlations were found with at least 1 of the criterion measures for all of the MATRIX scales except for Coalition Building.

A Caution Statement on Misinterpretations

1. MATRIX is designed for developmental purposes and is not designed for use in selection, compensation, or performance appraisal purposes.
2. Individual participants own their feedback data and must be given exclusive possession of all copies of their feedback reports. If you do otherwise, participants should be made aware of this.
3. Confidentiality of all individual feedback data must be ensured and safeguarded.
4. The giving of feedback must follow the collection of any data on an individual or organization. Once data have been collected, the sooner the data are presented the higher the likelihood that the participants will be open to feedback.
5. The anonymity of individual respondents must be maintained except where an individual has clearly and expressly waived this requirement on the respondent questionnaire, or where specifically noted and agreed to.

International Use

Translations
Not currently available.

CHARACTERISTICS OF FEEDBACK

Types of Feedback Display: BAR GRAPH and FREQUENCY DISTRIBUTION

Self and rater data are presented in bar graphs.

Breakout of Rater Responses

Frequency distributions for the ratings of each tactic are presented for boss, direct report, and colleague categories and compared to self-ratings.

Feedback Delivery Strategies

Comparison to norms
Scale scores are converted into percentiles for comparison to the norms.

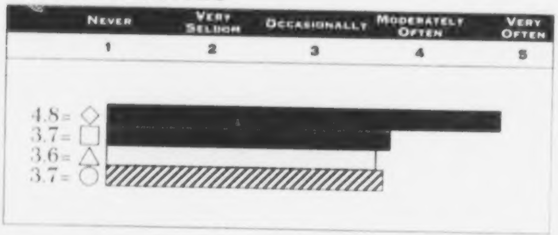
CONSULTING

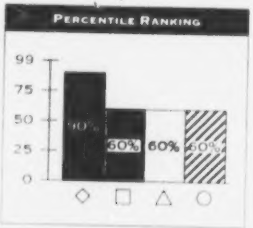
Seeking a person's participation in planning a strategy, activity, or change for which his/her support and assistance are desired, or being willing to modify a proposal to deal with his/her concerns and suggestions.

KEY

■ ◇ = Self (N=1)
■ □ = Colleagues (N=3)
□ △ = Boss (N=1)
▨ ○ = Direct Reports (N=3)

OVERALL RATING





RECOMMENDATIONS

	MORE	SAME	LESS
Consulting	— — ①	□ 3 △ 1 ②	— — —

NOTES

245

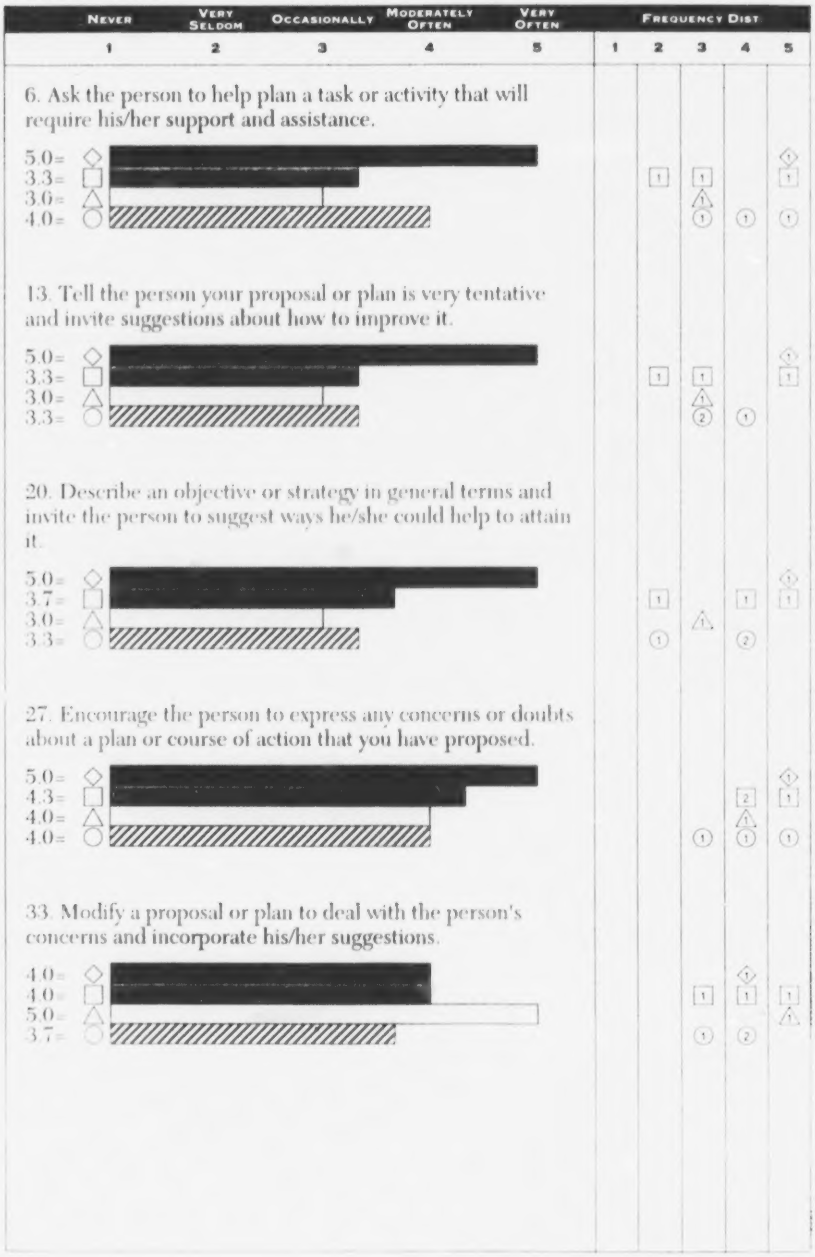
SAMPLE FEEDBACK

KEY

■ ◇ = Self (N = 1)
■ □ = Colleagues (N = 3)
□ △ = Boss (N = 1)
▨ ○ = Direct Reports (N = 3)

NOTES

CONSULTING



6. Ask the person to help plan a task or activity that will require his/her support and assistance.

5.0 = ◇
3.3 = □
3.0 = △
4.0 = ○

13. Tell the person your proposal or plan is very tentative and invite suggestions about how to improve it.

5.0 = ◇
3.3 = □
3.0 = △
3.3 = ○

20. Describe an objective or strategy in general terms and invite the person to suggest ways he/she could help to attain it.

5.0 = ◇
3.7 = □
3.0 = △
3.3 = ○

27. Encourage the person to express any concerns or doubts about a plan or course of action that you have proposed.

5.0 = ◇
4.3 = □
4.0 = △
4.0 = ○

33. Modify a proposal or plan to deal with the person's concerns and incorporate his/her suggestions.

4.0 = ◇
4.0 = □
5.0 = △
3.7 = ○

Current norms for MATRIX are based on more than 5,000 professional individual contributors, middle managers, and executives.

Highlighting largest self/rater discrepancies
Discrepancies are visually highlighted by the length of the bars in the graphic portion of the feedback report.

Item-level feedback
Feedback on all MATRIX items is provided.

Highlighting high/low items and scales
Summary pages of tactic scores and recommendations are provided for each rater group. These pages highlight the highest to lowest scale scores in order of strengths (Do Same) and areas for development (Do More).

"Do more/do less"
Feedback at the scale level about what to do more of and what to do less of is presented.

SUPPORT AND DEVELOPMENTAL MATERIALS

Support for Participant

Development and planning guide
A participant's manual is available that defines each tactic, identifies the purposes of the tactic, provides examples, describes situations in which the tactic is important, and offers tips and exercises for using the practice.

Workshop
A 1-day feedback workshop to help participants use their feedback results to prepare a development plan is available from Manus. A 2-day workshop is available that provides the opportunity to build influence skills through practice and coaching. Manus also certifies other qualified professionals to deliver the workshops.

Post-assessment
Post-assessment studies can be conducted for clients.

Vendor hotline
Manus has a hotline for MATRIX participants.

Summary worksheets
A summary of the results is included in the feedback report.

Support for Trainer

Trainers' guide/manual

There is a manual that contains a detailed trainer's outline, a planning guide, development guides for each scale, and information about the validation research of the instrument.

Workshop

A certification workshop is available through Manus.

Supplemental norms

MATRIX group reports can be generated for groups of managers, large departments, entire organizations, and industries.

Video

The MATRIX workshop includes a videotape model that shows effective and less effective uses of each tactic. It also shows managers how to meet with their observers to clarify the feedback and to commit to next steps.

Supplemental materials from the vendor

Manus develops customized competency models outlining which MATRIX tactics are used by the most effective people in a given company or role.

Certification Requirement

Users must go through a certification process that includes participating in a MATRIX workshop, attending a train-the-trainer session, and being observed delivering a session.

Scoring Process

MATRIX is computer-scored by the vendor. Turnaround time is 2 weeks.

OTHER CONSIDERATIONS

Cost

MATRIX is sold in sets. Cost varies by number ordered per year.

Quantity	Price per set
1-99	$350
100-249	$325
250+	$285

A set is comprised of 1 self-report version of the instrument and 10 copies to be completed by colleagues, direct reports, and boss. Scoring of the instrument is also included along with a computer-generated feedback report and the participant manual.

Length of Instrument

MATRIX consists of 35 behavioral items, 10 power items, 8 recommendation items, and 9 demographic questions. The instrument can be completed in 15 to 20 minutes.

MATRIX Bibliography

Kipnis, D., Schmidt, S., & Wilkinson, I. (1980). Intra-organizational influence tactics: Explorations in getting one's way. *Journal of Applied Psychology, 65*, 440-452.

Manus Associates. (1991). *Matrix participant's manual.* Stamford, CT: Author.

Yukl, G. A., Lepsinger, R., & Lucia, T. (1992). Preliminary report on development and validation of the Influence Behavior Questionnaire. In K. E. Clark, M. B. Clark, & D. P. Campbell (Eds.), *Impact of leadership* (pp. 417-428). Greensboro, NC: Center for Creative Leadership.

MANAGEMENT EFFECTIVENESS PROFILE SYSTEM (MEPS)

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Author: J. Clayton Lafferty, Ph.D.
Human Synergistics International

Copyright Dates: 1983, 1993

Statement of Purpose

The Management Effectiveness Profile System (MEPS) was developed to assess managers' on-the-job skills and behaviors as seen by the managers themselves and by other people (Lafferty, Webber, & Associates, 1984).

Target Audience

The MEPS is designed to be applicable to middle- to upper-level managers and has been used in industrial, service, and public-sector organizations.

Feedback Scales

The MEPS has 14 scales, each with 7 items. The scales represent 3 feedback areas: Task Skills, Interpersonal Skills, and Personal Skills.

TASK SKILLS

Problem Solving: Recognizing and solving problems
Recognizing and analyzing problems; dealing with "competing" issues; approaching unforeseen circumstances. Sample item: Performance discrepancies, failures and mistakes . . . (L) are ignored; problems are not acknowledged and things just continue as if nothing had happened. (R) are recognized; problems are carefully analyzed to pinpoint underlying causes and areas needing attention.

Time Management: Allocating time and using it effectively

Allocating time to the right things; dealing with the relationship between when things should be done and when they are done; making estimates regarding the amount of time needed to complete a task. Sample item: This person usually spends his/her time on . . . (L) the wrong things; insignificant activities and issues are emphasized at the expense of those of real importance. (R) the right things; appropriate time is devoted to the important activities and issues.

Planning: Providing direction and scheduling activities

Developing detailed plans; delineating and documenting the steps needed to implement a decision; anticipating events and specifying appropriate courses of action. Sample item: Typically, the plans developed by this person are . . . (L) so vague and general that people can't figure out what to do and when to do it. (R) sufficiently detailed to allow people to determine what needs to be done and when.

Goal Setting: Establishing goals and objectives

Setting objectives for your work group or unit; focusing objectives on things employees can control; establishing specific, concrete, and clear objectives. Sample item: Generally, the objectives this person adopts for his/her work group are . . . (L) totally realistic; either far too high or well below the group's potential. (R) challenging but attainable; they reflect the group's past performance as well as its potential for improvement.

Performance Leadership: Motivating performance and personal development

Structuring employees' work to make it motivating and interesting; evaluating performance by providing a sense of accomplishment and direction; assigning challenging work. Sample item: This person structures the work of his/her subordinates into . . . (L) simple tasks; jobs are designed in ways that fail to motivate people and utilize their capabilities. (R) moderately difficult tasks; jobs are frequently redesigned and expanded to make them more interesting and motivating.

Organizing: Assigning responsibilities and coordinating tasks

Minimizing duplication of effort; assigning authority to others that is clear and appropriate to their job responsibilities; giving people the authority necessary to meet their responsibilities. Sample item: When new projects come up or new priorities are identified, this person . . . (L) expects people to take on tasks that conflict with their existing activities. (R) assigns people tasks that complement their existing activities.

INTERPERSONAL SKILLS

Team Development: Promoting teamwork and cooperation

Creating a cooperative work "climate"; helping people work together toward shared objectives; developing individual work goals in relation to group goals. Sample item: The "climate" of this person's work group is . . . (L) competitive; people are compared with and pitted against one another. (R) cooperative; people are encouraged to help one another and are supported in their efforts.

Delegating: Decentralizing and empowering others
Assuming a general approach to tasks and allowing work group members to draw up the specifics; giving people freedom in determining how to get the job done; allowing group members to decide who does what. Sample item: In deciding on how to go about something, this person . . . (L) plans everything "to death" and must approve every detail. (R) adopts a general approach and allows members of the work group to draw up the specifics.

Participation: Sharing power and involving others
Evaluating suggestions on the basis of merit, not source; being open to ideas from others; helping people feel free to share their opinions and perspectives. Sample item: Suggestions regarding things to be done typically are evaluated on the basis of . . . (L) the source of the idea; only those suggestions made by this person or his/her superiors are considered. (R) the merits of the idea; all reasonable suggestions are considered—regardless of the source.

Integrating Differences: Accepting and resolving conflicts
Approaching work group arguments by deciding what is correct based on facts, instead of on who holds what position; treating disagreements as healthy expressions of different viewpoints; allowing disagreements to be expressed as a means of generating ideas and improving things. Sample item: When an argument develops within the work group, this person . . . (L) takes a position and does everything possible to prove it's right; he/she hates to lose at anything. (R) decides what is correct based on facts; it doesn't make any difference who holds what position.

Providing Feedback: Facilitating and encouraging growth
Being helpful and supportive when talking to others about their work; discussing performance by complimenting the good and helping to improve weaker areas; helping others to grow and develop by providing constructive feedback regularly. Sample item: When discussing people's work performance, this person focuses on . . . (L) weaknesses and shortcomings that somehow must be overcome. (R) strengths that can be built upon and developed in specific ways.

PERSONAL SKILLS

Stress Processing: Managing crisis and reducing stress
Seeking and discussing all suggestions calmly and openly when under stress or dealing with a crisis; solving a complicated problem by staying in control, using the information available, and making a rational decision; reacting to things "going wrong" by calmly trying to correct the situation. Sample item: When under stress or dealing with a crisis, this person . . . (L) interprets any suggestion as a criticism of his/her abilities. (R) seeks and discusses all suggestions calmly and openly.

Maintaining Integrity: Gaining the trust and confidence of others
Keeping your word and commitments; speaking the truth and being believable; respecting confidences. Sample item: When dealing with superiors or people from other parts of the organization, this person . . . (L) overlooks or disregards the interests and concerns of his/her subordinates. (R) uses his/her influence in appropriate ways to represent the concerns of subordinates and to promote their interests.

Commitment: Demonstrating loyalty and responsibility
Accepting heavy work loads without complaint; expressing trust and confidence in the organization and top management; applying yourself virtually all the time and giving a great amount to the job. Sample item: When setting objectives, establishing priorities, and interpreting organizational strategies for his/her group or unit this person . . . (L) emphasizes his/her group or unit—how it can "look good," meet its short-term needs, and enhance its status or position. (R) emphasizes the larger organization—its goals, long-term visibility, and his/her unit's contributions to its effectiveness.

Response Scale

A modified version of a behaviorally anchored rating scale is used. Each item presents 2 opposite ways of behaving. For example:

Generally, the objectives I adopt for my work group are . . .

(L) totally unrealistic, either far too high or well below the group's potential.
(R) challenging but attainable; they reflect the group's past performance as well as its potential for improvement.

The respondents select from the following 7 options to indicate how well each statement fits the person they are rating:

1. Almost exactly like the left description
2. Much more like the left description
3. Somewhat like the left description
4. About equally like the left description and right description
5. Somewhat more like the right description
6. Much more like the right description
7. Almost exactly like the right description

INSTRUMENT DEVELOPMENT

Origin of Items: Research/Theory

The content of the MEPS was derived from interviews with managers in which they were asked to describe the ways that otherwise effective people failed as managers. From these interviews, the most frequently mentioned dysfunctional behaviors were identified. Each of these behaviors was paired with an opposite behavior to make up the anchors for the 98 items in the instrument. There are an additional 14 "Summary Perceptions" questions on the self-assessment form and 17 additional "Summary Perceptions" on the Description-by-Others assessment.

The Task Skills and Interpersonal Skills were developed based on Stogdill's (1963) conception of Initiating Structure and Consideration. The additional cluster of skills (Personal Skills) was added in recognition of the impact certain other individual differences have on managerial effectiveness.

Development of Feedback Scales

Items were conceptually grouped into categories that correspond to accepted typologies of managerial functions. Statistical analyses were conducted on data from 1,467 raters of 312 middle- and upper-level managers from several organizations. Item-total correlations were run at the respondent level to ascertain whether the MEPS items correlated more strongly with their own categories than with any of the other categories; 89 of the 90 items did correlate most strongly with their own scales. Yet the authors note that these items/scales correlations were run without excluding the item in question from the scale, thus artificially inflating the resulting correlations. Removing the items from the totals would result in a greater number of items correlating more strongly with scales other than their own.

Subsequent factor analysis of the items resulted in 3 factors—task skills, interpersonal skills, and personal skills; only half of the items loaded on the expected factor, however, and 17% showed multiple loadings. The 3 factors explained 46.6% of the common variance (Cooke, 1989).

Reliability

Test-retest
Currently, no data are available.

Internal consistency
Cronbach's alpha coefficients for ratings by others for a sample of 1,301 managers range from .91 (Stress Processing) to .85 for (Team Development).

Interrater
Moderate levels of interrater agreement for scale scores were found in the sample of 312 managers who had been rated by an average of 4.7 others. Eta-squared statistics ranged from .34 for Organizing to .42 for Stress Reactions (Cooke, 1989).

Validity

Cooke (1989) reports a concurrent validity study in which a measure of overall effectiveness derived from the supplementary questions on the MEPS was regressed on 3 MEPS factor scores. These factor scores represented the 3 broad domains covered on the instrument: Task Skills, Interpersonal Skills, and Personal Skills. All 3 factors added to the prediction of the overall effectiveness measure, with Task Skills and Personal Skills weighted more heavily.

To eliminate problems due to common method variance, the regression described above was repeated using the effectiveness measure from superiors and the MEPS scores from peers, subordinates, and others. Task Skills and Personal Skills again significantly predicted effectiveness, but the variance accounted for was quite low (R-squared = .05).

A Caution Statement on Misinterpretations

The MEPS is designed and marketed as a management development tool. The publisher has collected normative comparison data using accepted, scientific practices. Therefore, Human Synergistics feels that use of the MEPS to provide feedback information about how a manager is performing, in comparison to the population of managers, is appropriate. However, the MEPS is not validated nor appropriate for making selection, recruitment, or performance evaluation decisions. Likewise, the MEPS is not intended to identify static traits but rather patterns of behavior that are modifiable. This means that any results from the MEPS should be viewed as a "snapshot" of the manager's behavior patterns, at the time he or she completed the assessment. Furthermore, the Human Synergistics model stresses that these "typical" behavior patterns can be changed by the individual.

International Use

Translations
MEPS is available in French.

CHARACTERISTICS OF FEEDBACK

Types of Feedback Display: GRID/PLOT, BAR GRAPHS, and NARRATIVE

The MEPS feedback report contains: (1) a narrative overview of managers' effectiveness as described by managers' observers, the 2 greatest strengths and development needs based on rating by "others" and the norm, skill areas where significant discrepancies in self and other ratings occurred; (2) bar graphs comparing scale scores for self and others compared to the norm group; (3) item scores for self and others plotted by scale; and (4) a framework for preparing an action plan based on the feedback.

Breakout of Rater Responses

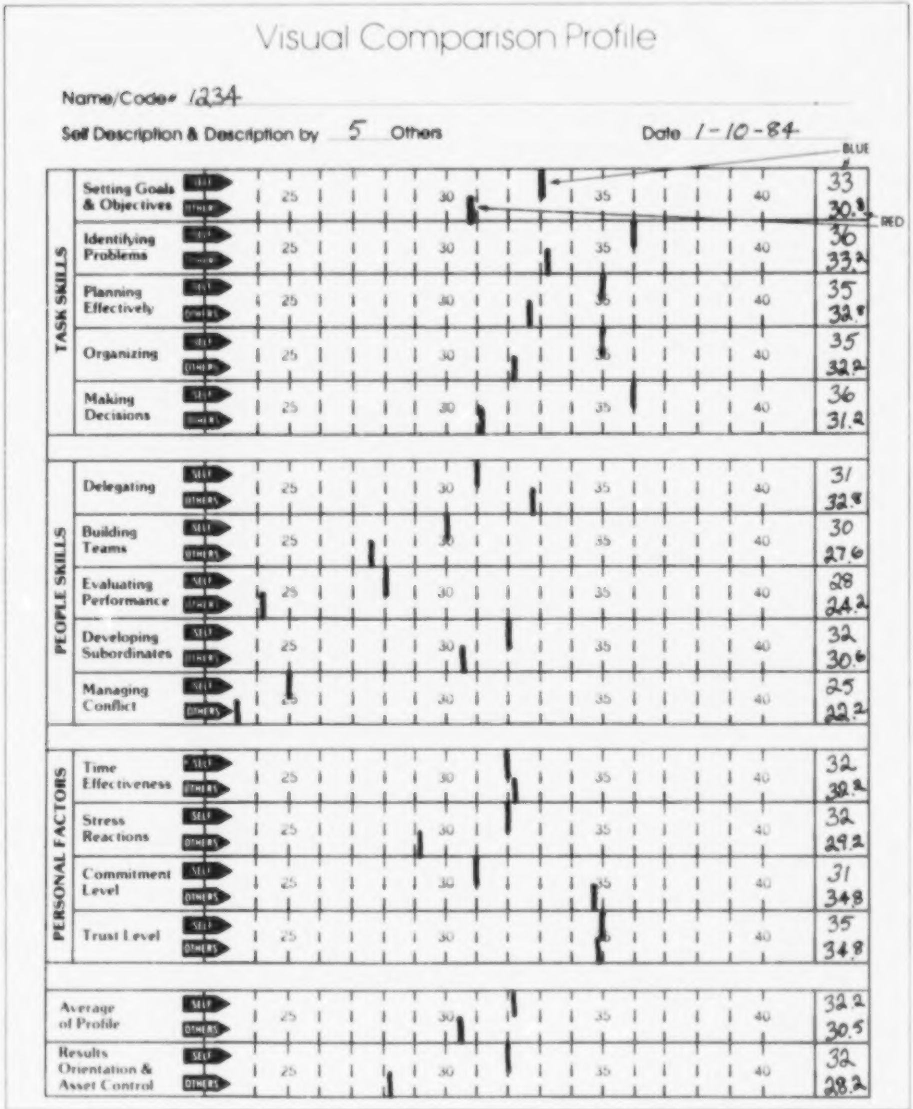
The feedback report can be separated by both structural relationship (subordinate, peer, superior) and by quality of relationship (friendly, neutral, adversarial); there must be at least 3 respondents in a subgroup to generate a sub-report.

Feedback Delivery Strategies

Comparison to norms
A manager's results are compared to the norm of 4,700 managers in several ways. The MEPS feedback report contains a narrative and visual overview of managers' effectiveness as compared to the norm. The narrative section lists the 2 greatest areas for development and the 2 greatest strengths. This is followed by a bar graph presentation of the skill area raw scores (the "visual comparison profile"). The "normative comparison profile" presents the scaled standard scores in bar graph format, to permit comparisons with the norm group. The Description-by-Others norm group is over 23,000 respondents.

Highlighting largest self/rater discrepancies
The overview narrative lists specific skill areas where there is inconsistency in the ratings between self and others. Over-ratings and under-ratings are shown separately and are determined by subtracting the associated percentile scores. If the absolute value of the difference between self and others percentile scores for a given skill area is greater than 30, then that skill is considered to be "inconsistent."

Item-level feedback
Item-level feedback is displayed throughout the feedback report in graphic form. For each item, the manager's score, the range of scores, and the average raw score from others are plotted.



Visual Comparison Profile

Name/Code# 1234

Self Description & Description by 5 Others

Date 1-10-84

TASK SKILLS	Setting Goals & Objectives	SELF	33
		OTHERS	30.8
	Identifying Problems	SELF	36
		OTHERS	33.2
	Planning Effectively	SELF	35
		OTHERS	32.8
	Organizing	SELF	35
		OTHERS	32.2
	Making Decisions	SELF	36
		OTHERS	31.2
PEOPLE SKILLS	Delegating	SELF	31
		OTHERS	32.8
	Building Teams	SELF	30
		OTHERS	27.6
	Evaluating Performance	SELF	28
		OTHERS	24.2
	Developing Subordinates	SELF	32
		OTHERS	30.6
	Managing Conflict	SELF	25
		OTHERS	22.2
PERSONAL FACTORS	Time Effectiveness	SELF	32
		OTHERS	32.2
	Stress Reactions	SELF	32
		OTHERS	29.2
	Commitment Level	SELF	31
		OTHERS	34.8
	Trust Level	SELF	35
		OTHERS	34.8
	Average of Profile	SELF	32.2
		OTHERS	30.5
	Results Orientation & Asset Control	SELF	32
		OTHERS	28.2

BEST COPY AVAILABLE

Highlighting high/low items and scales
The narrative summary provides managers with the 2 greatest strengths and 2 greatest development needs. These are based on the comparison of self-ratings to the ratings by others and the norms. A visual comparison of MEPS skill areas to the norm also highlight high/low areas.

SUPPORT AND DEVELOPMENTAL MATERIALS

Support for Participant

Self-Development Guide
The Self-Development Guide describes the concepts that make up each scale, discusses actions that can improve effectiveness in that skill area, and provides suggested readings.

Vendor hotline
Human Synergistics International has a toll-free number participants can call for supplemental information and assistance.

Summary worksheets
Worksheets are provided in the feedback report.

Support for Trainer

Trainers' guide/manual
A facilitator's guide, The MEPS Leader's Guide, is available. It includes suggestions for debriefing and outlines a sample training session format.

Workshop
Human Synergistics International offers a week-long trainers' workshop that covers all of its products.

Supplemental norms
A group profile is available from Human Synergistics International. The profile provides means, standard deviations, and high and low scores for both items and scales. Organizational norms are also available through Human Synergistics International.

Certification Requirement

Users do not have to be certified to give feedback or purchase the instrument.

Scoring Process

The MEPS is only available as vendor-scored.

OTHER CONSIDERATIONS

Cost

The MEPS package costs $125 per participant. Each package includes 1 self-assessment inventory, 6 inventories for assessment by others, scoring and generation of a personalized report by Human Synergistics, and the Self-Development Guide.

The MEPS Leader's Guide is available for $125.

Transparencies are available (at a cost of $100) to assist in debriefing during a MEPS program.

Length of Instrument

The MEPS–Self Description contains of 98 managerial skill items and 14 items capturing overall performance perceptions. It can be completed in about 35 minutes.

The MEPS–Description By Others consists of 98 managerial skill items plus 17 overall performance items. It can be completed in about 35 minutes.

An open architecture allows addition of items at client's request.

MEPS Bibliography

Cooke, R. A. (1989). Assessing managerial skills with the Management Effectiveness Profile System. *Education and Psychological Measurement, 49*(3), 723-732.

Lafferty, J. E., Webber, T., & Associates. (1984). *Management Effectiveness Profile System – Leader's Guide*. Plymouth, MI: Human Synergistics.

Stogdill, R. M. (1963). *Manual for the Leader Behavior Description Questionnaire – Form XII*. Columbus: Ohio State University, Bureau of Business Research.

MULTIFACTOR LEADERSHIP QUESTIONNAIRE (MLQ)

Vendor:	Mind Garden 1690 Woodside Road, Suite 202 Redwood City, CA 94061 (650) 424-8493
Authors:	Bernard M. Bass, Ph.D. Bruce J. Avolio, Ph.D. Center for Leadership Studies State University of New York at Binghamton Binghamton, NY (607) 777-3007 or (607) 777-4181

Copyright Dates: 1985, 1990, 1995, 1996

Statement of Purpose

The Multifactor Leadership Questionnaire (MLQ) offers a means by which one can systematically measure, explain, and demonstrate to leaders, in specific behavioral terms, the key factors that differentiate leaders across a full range of leadership, including transformational, transactional, and nontransactional leadership behavior (Bass & Avolio, 1997).

Target Audience

The MLQ was designed to be used with leaders at all levels. It has been applied in a wide range of organizational settings as well as with leaders from different cultures.

Feedback Scales

The MLQ contains 4 Transformational Leadership factors, 2 Transactional Leadership factors, 1 Nonleadership factor, and 3 Outcome factors (Satisfaction with the Leader, Individual and Group Effectiveness, and Extra Effort by Followers). The 8 leadership scales each contain 4 items; and the outcome scales each consist of 2 to 3 items.

TRANSFORMATIONAL LEADERSHIP—The 4 I's

*Idealized Influence (Behaviors & Impact)**
Builds trust, confidence, and attracts a following. Sample item: Emphasizes the importance of having a collective sense of mission.

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* Half of the items on this scale tap into behaviors, while the other half are indicators of an idealized leader affect or impact on trust and confidence.

Inspirational Motivation

Raises expectations and beliefs concerning the mission/vision. Sample item: Expresses confidence that goals will be achieved.

Intellectual Stimulation

Challenges "old" assumptions and stimulates idea generation. Sample item: Gets others to look at problems from many different angles.

Individual Consideration

Determines individual needs and raises them to higher levels. Sample item: Helps others develop their strengths.

TRANSACTIONAL LEADERSHIP

Contingent Reward

Clarifies objectives and exchanges rewards for performance. Sample item: Provides others with assistance in exchange for their efforts.

*Managing-by-Exception (Active & Passive)**

Takes corrective action when mistakes occur. Sample item: Waits for things to go wrong before taking action.

* This factor contains two subscales, which tap into active versus passive forms of corrective leadership.

NONLEADERSHIP

Laissez-faire

Is not around when needed. Sample item: Absent when needed.

ORGANIZATIONAL OUTCOMES

In addition, the MLQ contains 3 organizational outcome scales: Effectiveness, Extra Effort, and Satisfaction.

Response Scales

For each item, the rater judges how frequently the target leader fits the description using the following 5 options. The anchors are based on magnitude-estimation scales.

4 = Frequently, if not always
3 = Fairly often
2 = Sometimes
1 = Once in awhile
0 = Not at all

INSTRUMENT DEVELOPMENT

Origin of Items: Theory/Research

The MLQ, developed over a 15-year period, is based on numerous studies of leaders at all levels in public and private organizations. These studies focused primarily on the nature and consequences of transformational, transactional, and nontransactional leadership. Extending the ideas of Burns (1978), Downton (1973), and Zaleznik (1977), Bass (1985) characterized transformational leadership as a process of motivating followers or colleagues to do more than they originally expected they could do by enhancing their perceptions of self-efficacy and their developmental potential. Transformational leadership is contrasted with transactional leadership, an exchange process in which followers' needs are met if their performance measures up to their contracts with their leaders. In the Bass model, and later adaptations reported by Bass and Avolio, transformational leadership does not replace transactional leadership but augments it in achieving the goals of the group (Bass & Avolio, 1990, 1994, 1997).

A total of 142 items of leadership behavior was generated from a review of the theoretical literature and from the responses to an open-ended survey of 70 senior executives, all of whom had experience with a transformational leader according to Burns' (1978) definition. These items were then reviewed by 11 students enrolled in a graduate seminar on leadership, who were given a detailed definition of transformational and transactional leadership and were asked to read pertinent material about the distinctions. Then each student sorted the 142 items into 3 categories: transformational, transactional, or can't say. The 73 items that were selected for inclusion in a questionnaire were chosen with the following response-allocation criteria: An item was called transformational if 8 or more judges identified it as such and if none or 1 identified it as transactional; an item was called transactional if 8 or more judges identified it as such and if none or 1 identified it as transformational. A typical transformational item was, "Enables me to think about old problems in new ways." A typical transactional item was, "Points out what I will receive if I do what needs to be done."

Development of Feedback Scales

These 73 items were factor-analyzed, using data provided by a sample of 176 senior military officers. The analysis yielded 7 factors that correspond to the scales described above. Most replications of the original factor analysis have obtained similar results across various samples and cultures.

Analyses using partial least squares (a confirmatory approach) and item/scale correlations confirmed the factor structure of the MLQ in English, as well as in other languages including Italian, German, Hebrew, and Spanish.

Reliability

Test-retest

Scale test-retest reliabilities over a 6-month interval have been generally high (Bass & Avolio, 1990), ranging from .53 (Contingent Reward) to .85 (Satisfaction) for ratings by direct reports, and from .44 (Contingent Reward and Extra Effort) to .74 (Managing by Exception) for self-ratings.

Test-retest samples were based on ratings by 193 followers and 33 leaders.

Internal consistency

Cronbach's alpha coefficients for a sample of 2,080 associates of business, industrial, health care, military, and government leaders range from .81 (Active Managing-by-Exception) to .96 (Satisfaction). Alpha coefficients using self-ratings tended to be somewhat lower but still acceptable, ranging from .69 (Intellectual Stimulation) to .85 (Extra Effort).

Alpha coefficients for scale scores using a sample of 474 peer ratings are higher, ranging from .84 (Laissez-faire) to .94 (Effectiveness). These alpha coefficients have been replicated at equivalent, if not higher, levels in a broad range of profit, not-for-profit, and military samples.

Interrater

Correlations among direct reports, peers, and superiors tend to range from .20 to .40.

Validity

Numerous studies have looked at the relationship between MLQ scale scores and additional items on the MLQ that capture overall perceptions of leader effectiveness and satisfaction (Bass & Avolio, 1997). There have been over 100 theses, dissertations, and research projects conducted over the last 5 years. Copies of these reports are held in the Center for Leadership Studies Library at Binghamton University. A distinct pattern of correlations between Effectiveness/Satisfaction and the various scales can be seen across these studies, including studies using translated versions of the MLQ. A strong positive relationship with the Transformational Leadership scales, a moderate positive relationship with 1 of the Transactional Leadership scales (Contingent Reward), a low-to-zero relationship with the other active transactional scale (Active Managing-by-Exception), and a moderate to strong negative relationship with the (Passive Managing-by-Exception) nonleadership scale (Laissez-faire), respectively. Partitioning the Managing-by-Exception (MBE) scale into active and passive components results in stronger negative correlations between Passive Management-by-Exception and Transformational Leadership.

Based on Bass's model for the relationship between transformational and transactional leadership (i.e., transformational leadership augments transactional leadership in predicting outcomes), Waldman and Bass (1986) predicted that the Transformational Leadership scales on the MLQ should account for unique variance in ratings of performance above and beyond those accounted for by the Transactional Leadership scales. Their study of the MLQ as well as numerous additional investigations (Howell & Avolio, 1993; Seltzer & Bass, 1987; Waldman, Bass, & Yammarino, 1988; Yammarino, Spangler, & Bass, 1993) did support this prediction.

To compensate for the "same-source bias" problem, a new statistical procedure that allows each rater's MLQ ratings to be compared to the overall perceptions rating generated by another rater was applied to the data. The use of this procedure results in lower correlations between scale scores and criteria but the same pattern remains: stronger relationships with the Transformational Leadership scales than with the Transactional Leadership scales (Yammarino, Spangler, & Bass, 1993).

Many additional studies using independent performance criteria have been completed. Some of these are listed below in the bibliography.

Additional validation research is underway with the latest published version of the MLQ, referred to as MLQ5x.

Other Research

Bass and Avolio (1990) compared male and female managers on transformational and transactional leadership ratings received from their direct reports. The 229 managers were evaluated by 877 direct reports. The sample of managers was employed by 6 Fortune 500 firms and represented the middle-to-upper-management levels of their respective organizations. Findings from this investigation indicated that female managers were seen by both male and female followers as more transformational than their male counterparts. Women leaders were judged by their direct reports to practice less management-by-exception and laissez-faire leadership. There was also a tendency for women, as compared with men, to rate both male and female managers more favorably. These findings have been replicated in a broader range of small to medium-sized organizations (see Bass, Avolio, & Atwater, 1996).

A Caution Statement on Misinterpretations

The MLQ survey should be fed back to a target leader by a qualified consultant/facilitator. We do not recommend providing individual leaders with the report without some facilitation or coaching. In addition, the MLQ should be completed by a minimum of 3 raters to protect the anonymity and confidentiality of the raters.

International Use

Translations
The MLQ has been translated to Dutch, French, German, Hebrew, Italian, Japanese, and Spanish. MLQ5x has been translated to Arabic, Chinese, French, German, Hebrew, Italian, Portuguese, Spanish, and Urdu.

International norms
Norms are available for the various populations.

Internationally tested for validity/reliability
The MLQ has undergone validity testing using a Canadian sample of 76 senior executives from a large financial institution and their immediate subordinates (*N*=237).

A study by Avolio and Howell (1991) examined the degree to which leadership predicts follower satisfaction (measured by 2 questions about followers' satisfaction) and work-unit performance (performance data collected from the company 1 year after initial survey data collection). Hierarchical regression analyses of these data produced several findings: Transformational leadership (the weighted average of Charisma/Inspiration, Individual Consideration, and Intellectual Stimulation) predicted a moderately high proportion of the variance in explaining follower satisfaction (R-squared = .64) but only a small part of unit performance (R-squared = .08); Contingent Reward leadership explained a small portion of the variance for both follower satisfaction (R-squared = .17) and unit performance (R-squared = .04). Subsequent analyses examining the prediction of unit performance moderated by support for innovation in the organization showed stronger predictive validity for the MLQ (Howell & Avolio, 1993).

CHARACTERISTICS OF FEEDBACK

Types of Feedback Display: GRID/PLOT and NARRATIVE

Scale and item scores for self and observers are graphically depicted. Frequency distributions of responses are also provided. Narrative feedback is also provided on a scale-by-scale basis.

Breakout of Rater Responses

Scores from others are broken down by subgroup (e.g., same or lower level).

Sandy Sample

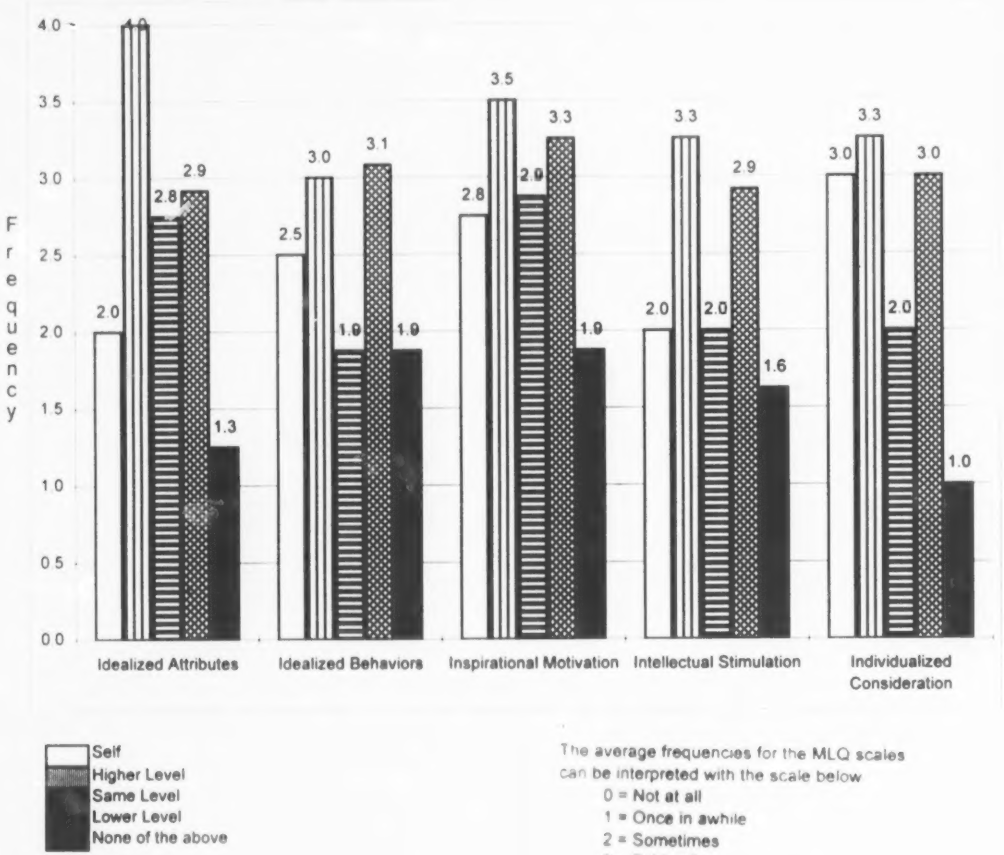
Graphs of Leadership Styles

The two charts below show the average of how you and your raters perceived the frequency of behaviors you exhibit for each leadership style.

You completed the MLQ to generate this report. The MLQ was also completed by the following number of raters:

One rater at a higher organizational level than you.
Two raters at the same organizational level as you.
Three raters at a lower organizational level than you.
Two raters marked None of the Above.

Transformational Leadership



The average frequencies for the MLQ scales can be interpreted with the scale below

0 = Not at all
1 = Once in awhile
2 = Sometimes
3 = Fairly often
4 = Frequently, if not always

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Feedback Delivery Strategies

Comparison to norms
Norms are presented as mean frequency in the feedback.

The sample includes results from thousands of followers, peers, and supervisors in a broad range of organizations (profit and nonprofit) across numerous organizations and cultures around the world. The corresponding norms and percentiles are provided in the training manual.

Highlighting largest self/rater discrepancies
The report provides self and other discrepancy scores for all sources compared to the target leader.

Item-level feedback
MLQ item-level feedback is provided.

Comparison to ideal
Not included. Published research, however, is available showing that transformational factors correlate much more highly with a measure of prototypical or ideal leadership than do the transactional factors.

SUPPORT AND DEVELOPMENTAL MATERIALS

Support for Participant

Development and planning guide
A development guide can be purchased from Mind Garden. The development guide includes a comprehensive planning process with specific development tips broken down by each leadership factor. The authors conduct and certify trainers to conduct a full range of leadership training programs to assist leaders in using their results to plan and implement their performance as leaders. As part of this program, there is a great deal of attention paid to using the MLQ for personal feedback and development.

Workshop
Contact the Center for Leadership Studies at Binghamton University or Mind Garden.

Post-assessment
Contact the Center for Leadership Studies at Binghamton University or Mind Garden.

Summary worksheets

Summary worksheets are available in the workshop manual.

Support for Trainer

Trainers' guide/manual

Full Range Leadership Development (Bass & Avolio, 1997) covers uses of the instrument, its norms, its origins and development, subsequent research, and the administration of the instrument; it also discusses the feedback profile.

Workshop

Periodic workshops are offered by Mind Garden.

Supplemental norms

The feedback report provides a group profile as well as individual feedback. The group may consist of everyone attending a particular workshop or everyone in an organization who had a set of questionnaires completed on himself or herself.

Organizational leadership effectiveness reports based on multiple MLQs from the same organization can be generated by Mind Garden.

Video

A video is available on the leadership development model that underlies the MLQ.

Certification Requirement

None required.

Scoring Process

There are several ways to administer the MLQ. First, it can be returned to the vendor for computer-scoring. Feedback reports can be produced in approximately 24 hours. Second, the surveys can be faxed to the vendor for scoring. Third, there is now a leadership development Web site that can be used by individuals or organizations for scoring. This developmental site can be set up for intranet and Internet use. It contains the multi-rater survey, materials for developmental support, a function for sending developmental tips to the target leader, and support materials (e.g., Power Point slides) for trainers and consultants to present the Full Range Leadership Model to their management.

OTHER CONSIDERATIONS

Cost

The MLQ is sold in sets at $125 per set. A set consists of a self-rating form, 6 rater forms, and computer-scoring. Additional rater forms can be purchased. Special pricing is available when using the MLQ for research.

Length of Instrument

The MLQ consists of 45 descriptive statements and questions about overall perceptions of effectiveness and satisfaction. It can be completed in about 15 minutes.

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THE PROFILOR®

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Copyright Date: 1991

Statement of Purpose

The PROFILOR was developed to provide managers with feedback on the skills they need to be effective in their present job and in future jobs. It focuses on specific job-related skills rather than on personality traits or managerial styles.

Target Audience

The PROFILOR is intended primarily for mid-level managers. It can, however, be used by all levels of management from supervisor to CEO. Other standard offerings within The PROFILOR family include: The PROFILOR for Individual Contributors, The PROFILOR for Internal Consultants, The PROFILOR for Sales, The PROFILOR for Supervisors, and The PROFILOR for Attorneys.

Feedback Scales

The standard version of The PROFILOR has 130 items that form the following 24 scales:

Analyze Issues (5 items)
Gathers relevant information systematically; considers a broad range of issues; seeks input from others; uses logic in analyses. Sample item: Analyzes problems from different points of view.

Use Sound Judgment (4 items)
Makes timely and sound decisions; makes decisions under conditions of uncertainty. Sample item: Makes timely decisions.

Establish Plans (5 items)
Develops short- and long-term plans that are appropriately comprehensive, realistic,

and effective in meeting goals. Sample item: Identifies specific action steps and accountabilities.

Manage Execution (9 items)
Assigns responsibilities; delegates and empowers others; removes obstacles; allows for and contributes needed resources; coordinates work efforts when necessary. Sample item: Delegates enough of own work to others.

Provide Direction (5 items)
Fosters the development of a common vision; provides clear direction and priorities; clarifies roles and responsibilities. Sample item: Makes the team mission and strategies clear to others.

Lead Courageously (7 items)
Steps forward to address difficult issues; puts self on the line to deal with important problems; stands firm when necessary. Sample item: Takes a stand and resolves important issues.

Influence Others (6 items)
Asserts own ideas and persuades others; gains support and commitment from others; mobilizes people to take action. Sample item: Wins support from others.

Foster Teamwork (7 items)
Builds effective teams committed to organizational goals; fosters collaboration among team members and among teams; uses teams to address relevant issues. Sample item: Uses a team approach to solve problems when appropriate.

Motivate Others (6 items)
Encourages and empowers others to achieve; establishes challenging performance standards; creates enthusiasm. Sample item: Creates an environment where people work their best.

Coach and Develop (8 items)
Accurately assesses strengths and development needs of employees; gives timely, specific feedback; provides challenging assignments and opportunities for development. Sample item: Coaches others in the development of their skills.

Champion Change (5 items)
Challenges the status quo and champions new initiatives; acts as a catalyst of change and stimulates others to change; manages implementation effectively. Sample item: Champions new initiatives within and beyond the scope of own job.

Build Relationships (7 items)
Relates to people in an open, friendly, accepting manner; shows sincere interest in others and their concerns; initiates and develops relationships with others as a key priority. Sample item: Develops effective working relationships with peers.

Display Organizational Savvy (4 items)
Develops effective give-and-take relationships with others; understands the agendas and perspectives of others; recognizes and effectively balances the interests and needs of one's own group with those of the broader organization. Sample item: Compromises to build give-and-take relationships with others.

Manage Disagreements (4 items)
Brings substantive conflicts and disagreements into the open and attempts to resolve them collaboratively; builds consensus. Sample item: Works toward win/win solutions whenever possible.

Speak Effectively (4 items)
Speaks clearly and expresses self well in groups and in one-to-one conversations. Sample item: Speaks clearly and concisely.

Foster Open Communication (5 items)
Creates an atmosphere in which timely and high-quality information flows smoothly between self and others; encourages open expression of ideas and opinions. Sample item: Encourages others to express their views, even contrary ones.

Listen to Others (5 items)
Demonstrates attention to and conveys understanding of the comments and questions of others; listens well in a group. Sample item: Listens carefully to input.

Drive for Results (4 items)
Drives for results and success; conveys a sense of urgency and drives issues to closure; persists despite obstacles and opposition. Sample item: Puts top priority on getting results.

Show Work Commitment (4 items)
Sets high standards of performance; pursues aggressive goals and works hard to achieve them. Sample item: Sets high personal standards of performance.

Act with Integrity (5 items)
Demonstrates principled leadership and sound business ethics; shows consistency among principles, values, and behavior; builds trust with others. Sample item: Shows consistency between words and actions.

Demonstrate Adaptability (7 items)
Handles day-to-day work challenges confidently; is willing and able to adjust to multiple demands, shifting priorities, ambiguity, and rapid change; shows resilience in the face of constraints. Sample item: Works constructively under stress and pressure.

Develop Oneself (5 items)
Learns from experience; actively pursues learning and self-development; seeks feedback and welcomes unsolicited feedback; modifies behavior in light of feedback. Sample item: Seeks feedback to enhance performance.

Use Technical/Functional Expertise (5 items)
Possesses up-to-date knowledge in the profession and industry; is regarded as an expert in the technical/functional area; accesses and uses other expert resources when appropriate. Sample item: Keeps up-to-date on professional/technical developments.

Know the Business (4 items)
Shows understanding of issues relevant to the broad organization and business; keeps that knowledge up-to-date; has and uses cross-functional knowledge. Sample item: Understands how the business is run.

Managers also receive feedback on 2 composite scales, *Empowerment* (20 items) and *Career Issues* (20 items). Items on these composite scales are drawn from behaviors on the other 24 scales. The PROFILOR also provides scores on an *Overall Performance* scale (5 items), which indicates the extent to which the manager is seen as effective.

Customization of the above feedback scales is available as a way for organizations to reflect their unique competencies and characteristics.

Response Scales

Respondents rate performance on each item using a 5-point scale:

1 = Not at all
2 = To a little extent
3 = To some extent
4 = To a great extent
5 = To a very great extent
NA = Does not apply

Importance ratings are completed by the target manager and his or her boss(es). The respondent is asked to rate no more than 8 skills as "Critically important" and no more than 8 as "Very important." The importance ratings are made on a 7-point scale:

1 or 2 = Important
3, 4, or 5 = Very important
6 or 7 = Critically important

INSTRUMENT DEVELOPMENT

Origin of Items: Theory/Experience

The PROFILOR is based on several decades of experience and research by Personnel Decisions International (PDI) into the nature of managerial work. PDI developed a model of managerial performance based on the research of Campbell, Dunnette, Lawler, and Weick (1970), as well as the assessment center literature. This model included 8 factors of managerial work and 28 skills. During the 1980s, PDI developed the Managerial Skills Profile (MSP), a multi-rater instrument that measured 18 of the skills from their model of managerial performance. Hazucha (1990, 1991) analyzed MSP data and concluded that some items were not related to performance, including all of the items on the Financial and Quantitative scale. These findings were used to decide which items to retain on a new instrument, which eventually became The PROFILOR. Some MSP items were revised and many new items were added. These new items were pilot-tested with a sample of 300 managers and 3,000 respondents (Personnel Decisions, Inc., 1990a, 1990b). Based on these results, a new instrument containing 39 dimensions and 201 items was developed. This instrument is now known as The PROFILOR Plus.

Development of Feedback Scales

In 1990, Holt and Skube conducted job-analysis interviews and administered questionnaires to hundreds of managers to investigate the changing nature of managerial work. They identified 30 skill dimensions, several of which were not included in PDI's original model of managerial performance. Based on research and experience, the most critical management skills were identified, resulting in the standard version of The PROFILOR, which contains 24 scales.

Based on PDI's experience with managerial work, The PROFILOR scales were grouped into 8 factors that provide a useful framework for understanding feedback results.

The 8 factors are:

1. Thinking (Analyze Issues and Use Sound Judgment)
2. Administrative (Establish Plans and Manage Execution)
3. Leadership (Provide Direction, Lead Courageously, Influence Others, Foster Teamwork, Motivate Others, Coach and Develop, and Champion Change)
4. Interpersonal (Build Relationships, Display Organizational Savvy, and Manage Disagreements)
5. Communication (Speak Effectively, Foster Open Communication, and Listen to Others)
6. Motivation (Drive for Results and Show Work Commitment)

7. Self-Management (Act with Integrity, Demonstrate Adaptability, and Develop Oneself)
8. Organizational Knowledge (Use Technical/Functional Expertise and Know the Business)

Reliability

Test-retest
Currently, no data are available.

Internal consistency
Cronbach's alphas are reported for each perspective. Values for boss ratings on the 24 scales range from .78 (Develop Oneself) to .89 (Motivate Others). Values for direct report ratings range from .85 (Know the Business) to .94 (Motivate Others). Values for peer ratings range from .84 (Drive for Results) to .93 (Motivate Others). The values for self-ratings tend to be the lowest, ranging from .64 (Develop Oneself) to .83 (Lead Courageously).

Interrater
Interrater reliabilities (intraclass correlations) are reported for samples of 1,419 peers and 1,213 direct reports. With ratings from 3 peers for each manager, the reliabilities of the 24 scales ranged from .47 (Know the Business) to .60 (Build Relationships). With ratings from 3 direct reports, the reliabilities ranged from .48 (Know the Business) to .61 (Show Work Commitment).

Validity

A content-related approach was used in the development of The PROFILOR. As described previously, PDI conducted interviews and administered questionnaires to identify the dimensions of successful managerial performance. Items were written in an effort to represent the behavioral content of particular skills identified by the job analysis.

In the original pilot study (Personnel Decisions, Inc., 1992), a criterion-related validity study was conducted using the 39-scale version of The PROFILOR. Outcome measures were collected from the raters of 622 managers in 49 different organizations. Four criterion measures were used: overall competence, long-range potential, career jeopardy, and promotabilty. The results indicated that ratings on all 39 scales were significantly related to the 4 criterion measures. For example, the scales most strongly related to competence included Influence Others, Use Sound Judgment, Establish Plans, Provide Direction, and Analyze Issues. Similar results were found for the potential and promotabilty criteria. For career jeopardy, the top 5 predictors were Build Relationships, Act with Integrity, Display Organizational Savvy, Demonstrate Adaptability, and Manage Disagreements. These results have been replicated in more recent studies using larger samples.

Other Research

Research with The PROFILOR supports the hypothesis that multi-rater feedback is an effective tool for management development. Managers (N=712) in a multinational organization completed the instrument twice. At time 2, others rated the managers significantly higher on 21 of the 28 scales (Personnel Decisions, Inc., 1994).

In a study of gender differences, Cochran (1993) reported that women tended to be rated higher by others on the majority of The PROFILOR scales. Men were not rated significantly higher than women on any of the scales.

To address cross-cultural differences, PDI conducted several studies comparing The PROFILOR ratings received by managers in the U.S. and Europe (e.g., Hazucha, 1995; Hazucha, Hezlett, Bontems-Wackens, & Ronnkvist, 1995). These studies found that the ratings varied by countries. For example, managers in Germany tended to receive the highest ratings, whereas managers in France received the lowest ratings. Ratings for U.S. managers tended to fall somewhere in the middle. These differences appear to be the result of the tendency of raters in different countries to give more lenient or more severe ratings.

Baisden, Chung, Hezlett, and Ronnkvist (1996) compared relationships between The PROFILOR ratings and outcome measures across 4 ethnic groups (African American, Asian/Pacific, Hispanic/Latino, and Caucasian). In general, correlations between the ratings and the outcome measures did not vary by ethnic group.

A Caution Statement on Misinterpretations

The PROFILOR is an instrument developed to provide feedback and development focus and recommendations to individuals about their skill strengths and development needs. It should not be used as the sole source of information concerning selection, promotion, salary review and adjustment, dehiring (firing), and/or deselection decisions.

International Use

Translations

Complete materials for The PROFILOR have been translated into Anglicized English, Danish, Dutch, French, German, Italian, Japanese, Portuguese, Spanish (global), and Swedish

Questionnaires only have been translated into Chinese, Indonesian (Bahasa), Korean, Norwegian, and Spanish (European and Mexican).

International norms
International norms are available for Asia/Pacific, Europe, Japan, Sweden, and United Kingdom.

Internationally tested for validity/reliability
Not currently available.

CHARACTERISTICS OF FEEDBACK

Types of Feedback Display: BAR GRAPHS, GRIDS/PLOTS, and NARRATIVE

The PROFILOR feedback report is organized into 3 parts: Summary Information (skills and importance ratings), Detailed Information (item-level feedback), and Developmental Highlights (focus for development and development suggestions). In the Skills Overview, the feedback displays are comprised of modified bar graphs and narrative text. Shaded bars are used to indicate the mid-range (i.e., the middle 50% of the ratings) for the norm group while symbols are superimposed over the norm to contrast self- and others ratings.

In the Focus for Development section, strengths and development needs are reported. Strengths represent the 3 skills that were rated highest by others relative to the norm group. Possible areas for improvement represent the 3 skills that were rated lowest by others relative to the norm group.

PDI offers customized feedback reports at the client's request. In addition, composite reports are available to help clients diagnose training and development needs.

Breakout of Rater Responses

For each scale, 5 summary scores are presented: self-ratings, the average scale scores for each perspective (boss, peer, and direct report), and an overall others rating.

Feedback Delivery Strategies

Comparison to norms
Self-ratings and ratings by others are compared to the range of ratings received by the middle 50% of managers in the norm group. Also, the Focus for Development section takes into account normative information when identifying strengths and development needs.

The PROFILOR norms are based on managers who have taken the instrument since 1991. Several different types of norms are available at additional cost. For example, local norms or industry norms can be developed.

SPECIFIC QUESTION RESULTS

	RATING	RATINGS BY OTHERS				*SMH
	Self	Boss	Dir Rpt	Peer/Coll	Average	page #
THINKING FACTOR ANALYZE ISSUES	**4.00**	**4.00**	**4.13**	**4.26**	**4.13**	
Learn new information quickly	4.00	4.00	[4.67]	4.50	4.39	672
Understand complex concepts and relationships	4.00	4.00	(3.67)	(3.67)	3.78	670
Focus on important information without getting bogged down in unnecessary detail	4.00	[5.00]	4.33	[4.75]	[4.69]	671
Analyze problems from different points of view	4.00	4.00	4.00	4.25	4.08	670
Apply accurate logic in solving problems	4.00	(3.00)	4.00	4.00	(3.67)	673
USE SOUND JUDGMENT	**4.50**	**4.50**	**4.17**	**4.33**	**4.33**	
Consider alternative solutions before making decisions	(4.00)	[5.00]	4.00	4.33	4.44	682
Make timely decisions	[5.00]	(4.00)	[4.67]	[4.67]	4.44	689
Make sound decisions based on adequate information	(4.00)	[5.00]	4.00	4.33	4.44	682
Make decisions in the face of uncertainty	[5.00]	(4.00)	4.00	(4.00)	(4.00)	688
ADMINISTRATIVE FACTOR ESTABLISH PLANS	**3.60**	**3.40**	**3.93**	**4.10**	**3.81**	
Translate business strategies into clear objectives and tactics	4.00	[4.00]	[4.33]	[4.50]	[4.28]	24
Identify specific action steps and accountabilities	4.00	[4.00]	(3.67)	4.25	3.97	28
Prepare realistic estimates of budget, staff, and other resources	(3.00)	3.00	4.00	(3.75)	3.58	27
Anticipate problems and develop contingency plans	(3.00)	3.00	4.00	4.00	3.67	31
Integrate planning efforts across work units	4.00	3.00	(3.67)	4.00	(3.56)	30
MANAGE EXECUTION	**3.67**	**4.56**	**4.07**	**4.20**	**4.28**	
Delegate enough of own work to others	3.00	4.00	(3.67)	(3.67)	(3.78)	75
Convey clear expectations for assignments	4.00	5.00	[4.67]	4.50	[4.72]	78

* Successful Manager's Handbook - 1992 Edition

Key [ ] 1 or 2 highest rated items in each skill for each perspective
( ) 1 or 2 lowest rated items in each skill for each perspective
If 3 or more ratings are equally high or low, none are marked

The PROFILOR / PDI

Highlighting largest self/rater discrepancies
The first section of the feedback report (the Skills Overview) presents self/other comparisons. Discrepancies greater than .5 on the rating scale (approximately 1 standard deviation) trigger symbols to appear in the "discrepancy" column of the feedback report, indicating if self-ratings were higher or lower than others ratings.

Item-level feedback
Mean ratings on all PROFILOR items by perspective are provided, including the composite scales and the overall performance scale.

Highlighting high/low items and scales
The feedback includes the 20 highest and 20 lowest items, in rank order according to the average of others ratings. The bottom 20 items are particularly useful in pinpointing development issues that cut across scales.

The section of the report providing item-level feedback reports how items were rated by each perspective. Brackets are placed around the 1 or 2 highest-rated items by perspective within each dimension. Parentheses are similarly used to indicate the lowest-rated items. These symbols help the manager search for trends and discrepancies in the data (e.g., items where they rated themselves high while others rated them low).

Importance to job or success
In the importance summary, a bar graph compares the manager's importance ratings to those made by his or her boss. These data are also included for each scale in the Skills Overview.

SUPPORT AND DEVELOPMENTAL MATERIALS

Support for Participant

Development and planning guides
A copy of The PROFILOR Development Guide accompanies every feedback report. This guide contains sample pages from each section of the feedback report and explains how to interpret the information (format, symbols, etc.) contained in the feedback report. It also provides the manager with a step-by-step method for building on strengths and addressing development needs in constructing a development plan. The sample development plan in the back of the guide shows the manager what level of specificity is needed in setting objectives and formulating action plans. The development guide is packaged with a blank action plan for the manager to complete.

Workshop
A standard 1-day workshop, The PROFILOR Feedback and Development Workshop, includes preparing the individual to receive his or her feedback, reviewing techniques for

soliciting additional information, and provides structure and information on creating effective development plans. Train-the-trainer materials for this workshop are included as part of the 2-day Profile Certification Workshop.

A second workshop, Development FIRST, provides an introduction to using The PROFILOR for planning personal development. The workshop includes hands-on experience with the *DevelopMentor*® software program and the *Development FIRST* book.

Post-assessment
Change Reports are available for managers who wish to retake The PROFILOR and compare their scores to a previous implementation. Managers receive their Change Reports when they receive their second set of PROFILOR feedback reports.

Vendor hotline
PDI has a hotline that facilitators and participants can call for information.

Summary worksheets
Worksheets are provided in the development guide.

Support for Trainer

Trainers' guide/manual
A comprehensive manual is furnished to certified trainers. The certification manual includes train-the-trainer materials for conducting the 1-day PROFILOR Feedback and Development Workshop (participant materials, overheads, and a detailed leader guide). In addition, materials for conducting the initial kick-off or communication meeting are included. Reference materials include a complete description of the various competency models available within the PDI Profile Family, guidelines for conducting a one-on-one feedback session, information on how to strategically implement 360-degree feedback, administration information about PDI's state-of-the-art processing center, and technical/research information.

Workshop
Trainers must be certified to provide PROFILOR feedback by attending a 2-day Certification Workshop. The trainers are provided with the manual described above during this workshop.

Supplemental norms
Trainers may order a group report for a group of managers who receive their feedback in the same workshop/time period. This report shows how the group members rate themselves and how their respondents rated them, relative to the norms. It also reports the aggregate number of strengths and development needs at a skill and item level.

Local (organization-specific) norms can be provided for organizations or parts of organizations that process sufficient numbers of the instrument (preferably more than 200) and want to establish their own comparisons. PDI has also customized The PROFILOR for use in several different kinds of organizations. Customized feedback reports may include organization-specific development suggestions.

Supplemental materials from the vendor

PDI's *Successful Manager's Handbook* (Davis, Hellervik, Skube, Gebelein, & Sheard, 1996) is available for individuals completing The PROFILOR. In the item-level feedback section of the feedback report, the relevant page in the book is listed for each of the PROFILOR items. This book contains on-the-job development suggestions, readings, and information on seminars to help individuals develop skills in a variety of areas related to successful performance.

Other publications are available to support development efforts. *Development FIRST* (Peterson & Hicks, 1995) provides a practical approach to development. A research-based model is explained, with 5 core strategies for continuous learning. The book *Leader as Coach* (Peterson & Hicks, 1996) provides individuals with practical strategies on how to coach and develop others. These strategies are also presented in a workshop on coaching offered by PDI.

DevelopMentor® is a Windows-based software tool that integrates assessment development planning and learning activities into the development process. The software has the ability to import data from The PROFILOR and can be customized to meet specific organizational needs.

PDI offers consulting services on the preparation of development plans and on linking the results to business goals and issues.

Certification Requirement

A 2-day certification process is available through PDI. The PROFILOR is sold only to approved or certified users.

Scoring Process

A scannable form is scored by the vendor. Licensing (in-house processing) is also available and is cost effective if hundreds of PROFILORs are processed annually. Internet-based versions of The PROFILOR are available for on-line data entry.

Turnaround time, once all forms are received, is 5 to 7 business days.

OTHER CONSIDERATIONS

Cost

The cost of The PROFILOR varies depending upon volume, development suggestions, and other factors. The price includes 1 self and 10 respondent forms, scoring, and the Development Guide and Development Plan. Please contact the vendor for more information.

Length of Instrument

The standard version of The PROFILOR has 130 behavioral items, 5 overall performance items, and 24 scales on the importance of skills to the manager's job. It takes approximately 30 minutes to complete.

Open architecture (customization) allows the addition, deletion, and/or modification of skills and items to both versions of The PROFILOR to meet specific client needs.

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PROSPECTOR™

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Statement of Purpose

PROSPECTOR was developed to help managers and executives gain insight into their strengths and development needs along certain important dimensions. Based on extensive research with international executives in a variety of global corporations, these dimensions reflect your ability to learn, over the course of your career, the skills important to effectiveness (McCall, 1995).

Target Audience

PROSPECTOR was designed to be used with individuals at all organizational levels and can be completed by a combination of supervisors, co-workers, peers, family members, and others.

Feedback Scales

PROSPECTOR assesses a person's openness to learning and willingness to engage in growth opportunities. Feedback is provided on 11 different dimensions of learning clustered into 2 broad categories: (1) engages in opportunities to learn and (2) creates a context for learning. The dimensions include the following.

ENGAGES IN OPPORTUNITIES TO LEARN

Seeks Opportunities to Learn
Has demonstrated a pattern of learning over time. Seeks out experiences that may change

perspective or provide an opportunity to learn new things. Takes advantage of opportunities to do new things when such opportunities come along. Has developed new skills and changed over time. Sample item: Has developed significant new skills over time.

Acts with Integrity
Tells the truth and is described by others as honest. Is not self-promoting, and consistently takes responsibility for his/her actions. Sample item: Is not self-promoting or arrogant.

Adapts to Cultural Differences
Enjoys the challenge of working in and experiencing cultures different from his/her own. Is sensitive to cultural differences, works hard to understand them, and changes behavior in response to them. Sample item: Is sensitive to differences between cultures.

Is Committed to Making a Difference
Demonstrates a strong commitment to the success of the organization and is willing to make personal sacrifices to contribute to that success. Seeks to have a positive impact on the business. Shows passion and commitment through a strong drive for results. Sample item: Clearly demonstrates his/her commitment to seeing the organization succeed.

CREATES A CONTEXT FOR LEARNING

Seeks Broad Business Knowledge
Has an understanding of the business that goes beyond his/her own limited area. Seeks to understand both the products or services and the financial aspects of the business. Seeks to understand how the various parts of the business fit together. Sample item: Understands the financial side of the business.

Brings Out the Best in People
Has a special talent with people that is evident in his/her ability to pull people together into highly effective teams. Is able to work with a wide variety of people, drawing the best out of them and achieving consensus in the face of disagreement. Sample item: Is able to achieve consensus even when people disagree on the best course of action.

Is Insightful: Sees Things from New Angles
Other people admire this person's intelligence, particularly his/her ability to ask insightful questions, identify the most important part of a problem or issue, and see things from a different perspective. Sample item: Is good at identifying the most important part of a complex problem or issue.

Has the Courage to Take Risks
Will take a stand when others disagree, go against the status quo, persevere in the face of opposition. Has the courage to act when others hesitate and will take both personal and

business risks. Sample item: Will persevere in the face of obstacles or criticism when he/she believes what he/she is doing is right.

Seeks and Uses Feedback
Pursues, responds to, and uses feedback. Actively asks for information on his/her impact, and has changed as a result of such feedback. Sample item: Learns from experience.

Learns from Mistakes
Able to learn from mistakes. Changes direction when the current path is not working, responds to data without getting defensive, and starts over after setbacks. Sample item: Learns from mistakes.

Is Open to Criticism
Handles criticism effectively. Does not act threatened or get overly defensive when others (especially superiors) are critical. Sample item: Is not threatened by criticism.

Response Scales

For each question, the rater indicates the amount of agreement in the accuracy of the description.

1 = Very Strongly Disagree
2 = Strongly Disagree
3 = Disagree
4 = Neutral
5 = Agree
6 = Strongly Agree
7 = Very Strongly Agree

INSTRUMENT DEVELOPMENT

Origin of Items: Research/Theory

PROSPECTOR was developed primarily under a grant from the International Consortium for Executive Development Research (ICEDR). One of the instrument authors conducted a literature review on executive development (McCall, 1994). Much of what he found in the early literature was that executive potential was based on a philosophy of selection. That is, the skills needed for senior leadership are assumed to be inherent and the key is to identify potential early (e.g., Barham & Oates, 1991; Bartlett & Ghoshal, 1995; Gardner, 1987; Howard & Bray, 1988; Kotter, 1982; McCall, Lombardo, & Morrison, 1988; Schaffer, 1985).

More recent literature has focused on the ability to learn from experiences (Bennis, 1989; Dechant, 1990; McCall et al., 1988; McCauley, Ruderman, Ohlott, & Morrow, 1994).

These 2 dominant streams of thought were combined into a study aimed at identifying the potential for success in senior-level positions and the ability to learn from experience. Interviews were conducted with managers who were actively involved in the early identification of executive potential, primarily U.S. managers who had had an expatriate assignment, had chosen executives for foreign assignments, or currently headed up international operations. The sample also included some non-U.S. executives working for U.S. multinational companies as well as U.S. expatriates on assignment abroad.

The data from the interviews suggested that the ability to learn from experience is manifested in 3 sets of behaviors: (1) some individuals seek out more experiences that provide learning opportunities; (2) once in those opportunities, some individuals create an environment and act on the environment in ways that produce more useful information and feedback; and (3) some individuals are more receptive to information on their performance and incorporate more of that information into future behavior.

These 3 sets of behaviors provided the framework for understanding the forces leading a person to seek out developmental experiences. Behavioral examples from the interviews and behavioral descriptions drawn from prior research were used to create a pool of items.

Development of Feedback Scales

Bosses' ratings from 838 surveys were factor-analyzed, the reliability of each factor was calculated, and items highly associated with more than 1 factor were deleted.

Reliability

Test-retest
Not currently available.

Internal consistency
Cronbach's alpha coefficients for a sample of 838 bosses' ratings representing 21 different countries (U.S. 36%) and 6 different companies range from .76 (Is Open to Criticism) to .89 (Brings Out the Best in People).

Interrater
Not currently available.

Validity

PROSPECTOR has been examined in relationship to 5 criterion measures: (1) Executive Potential, (2) Current Performance, (3) On-the-job Learning, (4) International Criteria, and (5) Derailment Potential. These data were provided by the 838 bosses of the target managers from the instrument development research.

The classification of executive potential was provided by the companies selecting managers for participation in the research. Seventy-one percent were identified as high-potential (*N*=593) while 28% were identified as solid performers (*N*=234) but not likely to advance further in the corporate hierarchy. Discriminate analysis was used to examine the power of the dimensions to distinguish high-potentials from solid performers. Ratings on the 11 scales provide discrimination, successfully distinguishing high-potential managers from solid performers in 73% of the cases. The scales Is Insightful, Seeks Opportunities to Learn, and Has the Courage to Take Risks were most likely to discriminate. As was predicted, too, high performers were rated significantly higher on all 11 dimensions.

To test the assumption that PROSPECTOR would be associated with performance, bosses of the target managers were asked to rate the managers' current job performance on a 5-point scale ranging from 1 = less than satisfactory to 5 = one of the best ever. All of the 11 dimensions were significantly correlated with boss ratings of overall managerial performance.

To test the relationship between PROSPECTOR and managers' ability to learn, 2 types of on-the-job learning were used as criteria: learning job content knowledge and learning behavior skills. In addition to completing the questionnaire, bosses were asked to use a 5-point scale (ranging from 1 = does not seem to learn much at all to 5 = extremely fast learner) to rate the following questions: (1) Relative to other managers you have worked with, how effectively does this person learn new technical, functional, service, or customer information?
(2) Relative to other managers you have worked with, how effectively does this person learn new behavioral skills—that is, new ways of interacting effectively with people in getting the job done? Again, all of the PROSPECTOR dimensions correlated with content learning and with ratings of behavioral learning.

Responses to 2 international criteria, predicted success in an expatriate executive assignment and predicted success dealing with international issues, were compared to PROSPECTOR results. Bosses responded to 2 questions: (1) If this person continues to develop at the current rate, and relative to other people at approximately the same level in your organization, how successful do you think he/she would be in an expatriate executive assignment? (2) If this person continues to develop at the current rate, and relative to other people at approximately the same level in your organization, how successful do you think he/she would be in an expatriate assignment dealing with international issues or problems (not as an expatriate)? Both questions were assessed on a 5-point scale ranging from 1 = almost certainly will not succeed to 5 = almost certainly will be successful. Expected success in an expatriate assignment and success in dealing with international issues was strongly correlated with all PROSPECTOR dimensions.

Ten potential weaknesses or "fatal flaws" identified in previous research (McCall & Lombardo, 1983) were rated by the bosses of respondents in terms of the likelihood the item would describe the respondents. The fatal flaws covered 2 potential reasons for derailment: (1) the inability to make the transition to a senior-management perspective, which is composed of an inability to think strategically, nurture key staff, delegate, be independent from a boss or mentor, and adapt to a boss with a style different from one's own; and (2) the inability to work effectively with others, which is composed of arrogance, too much ambition, insensitivity, untrustworthiness, and not accepting full responsibility for problems and mistakes. The relationships between ratings on PROSPECTOR and rated potential for derailment were examined for the total sample and for the high-potential and solid-performing samples. Each dimension was negatively correlated with 2 potential derailment factors. The findings for the high-potential and solid-performing samples were fairly consistent with the total sample. However, most dimensions were related more to 1 category of derailment factors than the other. Thus, different dimensions appear to key in buffering each type of executive derailment.

PROSPECTOR's construct validity was examined in a comparison of the results on PROSPECTOR to results on the *Learning Research Questionnaire* (Dalton, 1996). The *Learning Research Questionnaire*, a 10-item survey that describes learning-from-experience behaviors, had an alpha of .83. Fifty-three alumni of a leadership development program at the Center for Creative Leadership (CCL) asked their immediate boss to fill out PROSPECTOR and the *Learning Research Questionnaire*. Each manager also asked a peer to fill out the *Learning Research Questionnaire*. Correlations between ratings on these 2 questionnaires were calculated. The correlation of the 2 measures provided by the bosses was .87. The correlation between the boss's PROSPECTOR score and the peer's ratings on the *Learning Research Questionnaire* was .35. However, the correlation between the boss and the peer ratings on the criterion measure was also .35. These results suggest that differences in the results between the boss measures and the boss and peer measures may be a result of difference in rater perspective as opposed to rater bias.

Other Research

An investigation of gender differences has been conducted with PROSPECTOR. Virtually all of the women in the sample were from 1 company and were considered to be high-potential women. The analyses examined the differences in high-potential women versus high-potential men. The high-potential men scored significantly higher on the dimension Seeks Broad Business Knowledge. The women in the sample scored significantly higher than the men on Acts with Integrity, Has the Courage to Take Risks, and Seeks and Uses Feedback. Given what has been learned in recent years about the experience of women in management (e.g., Morrison, White, & Van Velsor, 1987; Ohlott, Ruderman, & McCauley, 1994), it will be important to continue researching PROSPECTOR's comparative validity.

A Caution Statement on Misinterpretations

1. PROSPECTOR is designed for developmental purposes and is not designed for use in selection, compensation, or performance appraisal purposes.
2. Individual participants own their feedback data and must be given exclusive possession of all copies of their feedback reports unless otherwise requested or agreed to by the individual.
3. Confidentiality of all individual feedback data must be ensured and safeguarded.
4. The anonymity of individual respondents must be maintained.
5. No data more than 1 year old will be released. To be useful, data should be current.

International Use

Translations
Not currently available.

CHARACTERISTICS OF FEEDBACK

Type of Feedback Display: BAR GRAPH

Scales for self and observers are graphically depicted. For the item-level feedback, frequency distributions of responses are provided.

Breakout of Rater Responses

The boss breakout is optional. Otherwise, scores of all "others" (e.g., peers or subordinates) are combined. Self-report data is provided separately.

Feedback Delivery Strategies

Comparison to norms
Norms are presented graphically in the feedback. For each dimension, scores are presented as being in 1 of 3 broad bands: low, medium, or high. The medium range reflects plus or minus 1 standard deviation from the mean. About two-thirds of all individuals will have scores that fall in the medium range.

The norm group consists of alumni of leadership development programs at CCL.

Engages in Opportunities to Learn

Seeks Opportunities to Learn

[illegible] Self | 5.8 Other

This Person ...

	Self	Others' Average	Very Strongly Disagree-1	Strongly Disagree-2	Disagree-3	Neutral-4	Agree-5	Strongly Agree-6	Very Strongly Agree-7
			Frequency						
1. Has grown over time.	7	6.1					2	4	3
12. Takes advantage of opportunities to do new things.	5	5.6			1		3	3	2
23. Treats all situations as an opportunity to learn something.	5	5.6				1	4	2	2
34. Has developed significant new skills over time.	6	6.1					2	4	3
44. Seeks experiences that will change his/her perspective.	5	5.7				1	3	3	2

Has the Courage to Take Risks

[illegible] Self | 5.4 Other

This Person ...

	Self	Others' Average	Very Strongly Disagree-1	Strongly Disagree-2	Disagree-3	Neutral-4	Agree-5	Strongly Agree-6	Very Strongly Agree-7
			Frequency						
8. Will persevere in the face of obstacles or criticism when he/she believes what he/she is doing is right.	6	5.9					3	4	2
19. Acts when others hesitate or just talk.	6	5.4					5	4	
30. Is willing to go against the grain.		5.4				1	3	5	
41. Takes personal as well as business risks.	5	4.7		1		2	4	2	

BEST COPY AVAILABLE

Item-level feedback
Item-level feedback is provided.

SUPPORT AND DEVELOPMENTAL MATERIALS

Support for Participant

Development and planning guide
A learning guide is available through CCL. The learning guide assists with the interpretation of the feedback by having the respondent list areas of agreement, disagreement, strengths, and developmental opportunities. Goal setting sheets are provided as well as suggested activities for developing each dimension measured by PROSPECTOR.

Post-assessment
The authors recommend that PROSPECTOR be retaken a year after the last completion. It is their belief that a year will give the respondent time to work toward significant changes in behavior and will give others an opportunity to notice these changes.

Summary worksheets
Summary worksheets are available in the learning guide.

Support for Trainer

Trainers' guide/manual
PROSPECTOR Discovering the Ability to Learn and Lead (McCall, Spreitzer, & Mahoney, 1996) covers the purposes of the instrument, its development, norms, subsequent research, administration of the instrument, and developmental planning.

Workshop
PROSPECTOR is one of the instruments presented in a CCL course, Tools for Developing Successful Executives.

Certification Requirement

To use PROSPECTOR, users must register by completing a form indicating that they have some training and experience in the interpretation of psychological tests and measurement, and agree to use the instrument in a responsible manner.

Scoring Process

PROSPECTOR is returned to the vendor for computer-scoring. Turnaround time, once all materials are received by CCL, is 1 week.

OTHER CONSIDERATIONS

Cost

PROSPECTOR is sold in sets starting at $195 per set. A set consists of 1 self-rating form, 10 rater forms, 1 feedback report, and 1 learning guide. Instruments are available at the following rates:

Quantity	Price Per Set	Administrative Price*
1-50	$195	$175
51-200	$185	$165
201+	$175	$155

* The Center offers a $20 discount per set if your organization handles the administration and collection of PROSPECTOR.

Length of Instrument

PROSPECTOR consists of 48 items and 10 demographic questions. It can be completed in about 20 minutes.

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SURVEY OF LEADERSHIP PRACTICES (SLP)

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Copyright Dates: 1987-1997

Statement of Purpose

The Survey of Leadership Practices (SLP) provides feedback from relevant others: boss, peers, and subordinates. As distinct from the Survey of Management Practices (SMP), this instrument emphasizes skills and attributes associated with changing organizations and their cultures, method, and procedures—skills beyond the basics of management (Wilson & Wilson, 1989).

Target Audience

The SLP is general enough to be appropriate at any level in the organization; it has, however, been used more frequently with middle and upper managers. The SLP has been used in business, industrial, and governmental organizations. The Leadership Task•Cycle® frames the survey feedback according to a model that is a sequence of skills. Therefore, the user receives co-worker feedback in a way that teaches him or her how to improve and become a more effective leader.

Feedback Scales

The SLP gives feedback on 6 skill-oriented phases of the Leadership Task•Cycle, plus Residual Impact and Sources of Power.

LEADERSHIP TASK•CYCLE

Phase I: Entrepreneurial Vision

(A) *Vision/Imagination* (5 items)
Ability to identify opportunities for making beneficial changes. Sample item: Looks for changes in operations that will raise productivity.

(B) *Risk-taking/Venturesomeness* (5 items)
Willingness to take chances and assess the probability of success. Sample item: Is not afraid to try a suggestion if it looks like an improvement.

Phase II: Leadership for Change

(C) *Organizational sensitivity* (6 items)
Alertness to organizational dynamics and communications with key people. Sample item: Is mindful of the internal dynamics of the organization and acts accordingly.

(D) *Encouraging participation* (5 items)
Open to suggestions from people in the work group on introducing change. Sample item: Encourages others to participate early in the decision-making process.

Phase III: Gaining Commitment

(E) *Teaming/Empowering* (5 items)
Builds a collaborative atmosphere with opportunities for individual development. Sample item: Makes a team approach an important part of managing and solving problems.

(F) *Persuasiveness* (5 items)
Ability to convince others to accept and support positive changes. Sample item: Is quite effective in getting others to accept a recommendation.

Phase IV: Monitoring Personal Impact

(G) *Feedback* (6 items)
Listens to and uses feedback from others on his or her ideas and behavior at work. Sample item: Pays attention to reactions to his or her suggestions.

Phase V: Drive

(H) *Standards of performance* (5 items)
Making sure people know that only the best is expected. Sample item: Lets you know you are responsible for performing at high standards.

(I) *Energy* (5 items)
Is a motivated and active person who is committed to his or her work. Sample item: Exhibits a strong desire to finish work assignments quickly.

(J) *Perseverance* (5 items)
Tendency to pursue a goal or change when others might be discouraged. Sample item: Keeps going with a plan or ideas when others get discouraged.

(K) *Push/Pressure* (4 items)
Pushing others to achieve their goals. (If not supported by skills in Phases I through IV, a high score can mean abrasiveness.) Sample item: Applies pressure to others to get them to perform well.

Phase VI: Recognizing Performance

(L) *Sharing credit* (4 items)
Sharing the credit for the organization's good performance. Sample item: Lets people know their efforts are appreciated.

RESIDUAL IMPACT

(M) *Effectiveness/Outcomes* (6 items)
An overall evaluation; the impact of an individual on the group. Sample item: Is really effective in promoting changes for better performance.

(N) *Coping with stress* (5 items)
Ability to remain calm and face problems in a business-like fashion. Sample item: Works through conflicts in a level-headed manner.

(O) *Trustworthiness* (5 items)
Acts in keeping with one's espoused beliefs. Sample item: Can be trusted to do what he or she says will be done.

SOURCES OF POWER

(P) *Temporary sources of power* (4 items)
Derives his or her influence from sources outside his or her control. Sample item: Personal connections with highly placed or other influential people.

(Q) *Lasting sources of power* (4 items)
Derives his or her influence from personal competence. Sample item: A high degree of functional expertise.

Also, the SLP includes 3 open-ended questions on the back page. The questions are: (1) What does this person do that should be continued? (2) What should this person do to be more effective? (3) What does this person do that should be stopped?

Response Scale

The raters indicate on a 7-point scale the extent to which each statement is true of the individual being rated. Anchors are provided at each end and at the midpoint of the response scale:

1 = Never or to a Small Extent
4 = Usually or to an Average Extent
7 = Always or to a Great Extent

INSTRUMENT DEVELOPMENT

Origin of Items: Theory/Experience

The SLP is drawn from task cycle theory applied to the leadership process (Wilson, O'Hare, & Shipper, 1990). According to this theory, organization behavior consists of a series of tasks. (A task is seen as consisting of sequential phases: a goal, a plan, resources, feedback, adjustment, and reinforcement.) The sum of repetitions of varying tasks totals up to the work of the unit or individual. This recycling of tasks is the means by which influence is exercised in organizations. The theory draws heavily on cognitive-learning theory (Bolles, 1972; Hilgard, 1956; Hilgard & Bower, 1966; Tolman, 1932).

Using insights into what managers actually do (Drucker, 1954; Weiner, 1948), Wilson first applied task cycle theory to the managerial role (see the summary of the SMP, pages 282-294). He views leadership as an extension of the managerial role, but it focuses more on bringing about beneficial change: "The key elements in leadership are the vision to identify positive changes and the skills to bring them about; as distinct from—but in addition to—the managerial skills of facilitating more immediate operating goal-seeking activities" (Wilson & Wilson, 1989, p. B2-2). The phases of the Leadership Task•Cycle are: Entrepreneurial Vision, Leadership for Change, Gaining Commitment, Monitoring Personal Impact, Drive, and Recognizing Performance. The skill dimensions on the SLP fit within these phases.

Development of Feedback Scales

Items were written to capture hypothesized dimensions of behavior relevant to the leadership role. Item responses were factor-analyzed (by each respondent category) to see if items clustered in meaningful dimensions. The authors set a target of 50% independence between scales (as measured by the reliability of difference scores statistic), and all the scales on the SLP meet this criteria.

Second-Order Factor Results

Recent factor analysis reveals the importance of 3 superfactors, also known as competencies, in the SLP, as well as other Clark Wilson surveys. These 3 broad factors, which contribute to a participant's success in the leadership role, are: *Structure*, *Relations*, and *Drive*.

Structure includes scales that measure a person's initiative, such as Vision/Imagination, Risk-taking/Venturesomeness, and Perseverance. *Relations* includes dimensions that address interpersonal relations, such as Organization sensitivity, Encouraging participation, Teaming/Empowering, Feedback, and Sharing credit. *Drive* refers to control skills such as Standards of performance, Energy, and Push/Pressure.

The results from the second-order factor studies led to a new version of the SLP, form J. The company is developing an optional additional section for the Feedback Report, which will allow participants to calculate their own scores and assess their standing in the competency Effectiveness.

Reliability

Test-retest

Currently, no data are available.

Internal consistency

Alpha coefficients for scales range from .67 (Energy) to .93 (Effectiveness). The average alpha for the 17 scales in the SLP is .85. The Energy scale has been rewritten, but not enough data have been collected to test the rewrite for improved internal consistency.

Interrater

Interrater agreement indexes for the scales range from .78 (Temporary sources of power) to .96 (Trustworthiness). The average interrater agreement index for the scales is .92.

Validity

The Effectiveness scale within the SLP itself serves as a validity measurement. When data on the 3 superfactors (see discussion on second-order factors above) is compared to the Effectiveness scale, the results fall out into 8 styles. In Style 1, all factor scores are LOW, moving to Style 8 where each factor score is HIGH. The highest ratings in Effectiveness come with Styles 7 and 8. In Style 7, Structure and Relations are HIGH and Drive is LOW; in Style 8, Structure, Relations, and Drive are all HIGH.

Research on these superfactors show marked indications of validity for the concept of "Balance," which is achieved when all competencies are HIGH. Therefore, the most effective leaders are those whose competencies balance above norms, with the exception of Drive when the other 2 are HIGH.

A Caution Statement on Misinterpretations

Clark Wilson surveys are designed to be used for coaching and developmental purposes only. The individual receiving feedback may share the confidential report with others at his or her discretion. Misuses of Clark Wilson instruments would consist of not honoring the confidential nature of the feedback report or using the survey results to take personnel actions. The surveys should not be used for performance appraisal, selection, or any other actions not related to individual development.

International Use

Translations
The SLP has been translated into Spanish and Portuguese.

International norms
Norms are available for the Spanish-translated instrument.

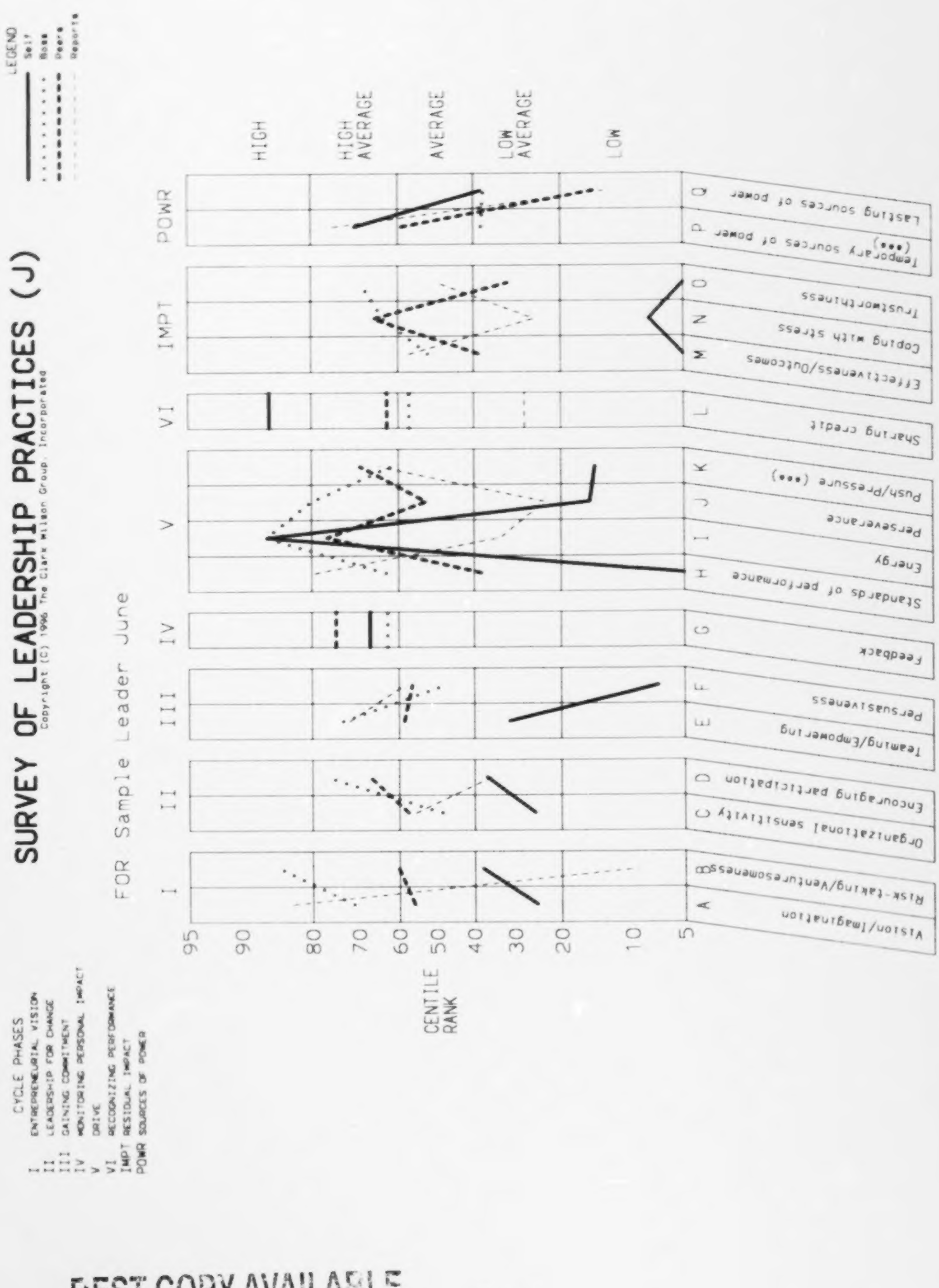
Internationally tested for validity/reliability
Internal consistency of the Spanish version of the SLP has been examined. No substantial variations from the English version were found.

CHARACTERISTICS OF FEEDBACK

The Clark Wilson Group (CWG) Feedback Report is currently under revision and will be available for users in 1998. Enhancements will include: improved graphic displays of data; list of 10 highest and 10 lowest scoring items; second-order factor analysis of data and individual profiling; and a Task•Cycle graphic on each page to facilitate learning from the model.

Types of Feedback Display: LINE GRAPH and NARRATIVE

The narrative portion of the feedback provides written details of raters' responses on each of the scales and items. This portion of the feedback also provides a written explanation of how the scales are interrelated and how the Task•Cycle model relates to managers' overall performance.



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Breakout of Rater Responses

Self-report data is compared to data from peers, direct reports, and boss. Rater responses can be combined at the request of the client.

Feedback Delivery Strategies

Comparison to norms
The Feedback Report provides direct comparisons to norms for each dimension and each perspective (self, boss, reports, and peers) in the narrative portion and indirect comparisons when the scores are graphed as percentiles.

General norms include around 1,000 managers drawn from samples in various industries. Specific industry samples may be smaller. Users are encouraged to develop their own norms. If a user's initial results are significantly different from the general norms, CWG may recommend using the general norms at the beginning.

Highlighting largest self/rater discrepancies
The SLP highlights self and rater discrepancies by listing whether the scale is a visible strength (self-rating is high and other ratings are high), unrealized strength (self-rating is lower than other ratings), acknowledged soft spot (self-rating is low and other ratings are low), or a blind spot (self-rating is higher than other ratings).

Item-level feedback
Included in the narrative report.

Highlighting high/low items and scales
Currently not included but will be available in the new Feedback Report format.

Comparison to ideal
A proposed optional section of the Feedback Report includes a Style 8 Chart, showing 8 styles compared to a rating on the desirable outcome *Effectiveness*. The chart shows how having a balance of skills in the Structure, Relations, and Drive competencies (Styles 7 and 8) yields the highest scores on *Effectiveness*. Participants can calculate their own styles and compare them to the chart for *Effectiveness*.

Importance to job or success
See above description of Style 8 Chart for *Effectiveness*.

"Do more/do less"
With a new emphasis on the 3 competencies and comparison to a desirable outcome, Wilson now places a major emphasis on which scores need to be improved.

Three open-ended questions at the end of the survey allow raters to write their comments: (1) What does this person do that should be continued? (2) What should this person do to be more effective? (3) What does this person do that should be stopped?

Others
An asterisk is used to indicate items where there was disagreement within a group of raters. A Disagreement Index (DI) of over 1.2, or 1 standard deviation, is used to suggest that the manager may be inconsistent in the way he or she relates to others.

SUPPORT AND DEVELOPMENTAL MATERIALS

Support for Participant

Guides
Two *Resource Guides*, 1 for Management and 1 for Leadership, offer developmental suggestions and tips organized by the dimensions of CWG surveys. It is also an aid for the coach or feedback-giver as a resource of practical ideas for participants who need this developmental help.

A proposed handout of the Style 8 Chart will enable the participant to calculate his or her own scores for comparing to the *Effectiveness* rating. The handout will identify the competencies that need strengthening.

Post-assessment
After 6 months or a year, the SLP can be readministered for Time 1–Time 2 comparisons.

Vendor hotline
Participants can call a toll-free number for further assistance.

Support for Trainer

Trainers' guide/manual
Meaningful Measures (MM; Wilson, Wilson, & Wilson, 1996) covers the full battery of CWG feedback surveys. It is written for all human resources professionals interested in implementing a 360-degree-feedback system. MM contains important background information: the theory and research behind CWG instruments, a full description of surveys with training aids, and a practical guide about how to implement a 360-degree-feedback program. A second volume of MM includes sample surveys, feedback reports, and validation studies and is available at the time of qualification.

Workshop
A Qualifications Workshop is available. The workshop introduces trainers to the SLP's development, theoretical origins, feedback, and interpretation.

Supplemental norms
Group profiles—composite reports—of multiple participants are available. The vendor encourages organizations to establish their own norms.

Supplemental materials from the vendor
Overhead transparencies are available from the vendor.

Certification Requirement

A Qualification Workshop is offered twice a year through CWG headquarters and more frequently through regional distributors, or upon request for a private session. It introduces users to the theory, development, and interpretation of the instruments, and provides practical assistance in implementing a feedback program.

Scoring Process

The vendor and regional distributors provide computer-scoring services. Turnaround time is 5 working days for 300 to 500 questionnaires.

A self-scoring version of SLP is available. It covers the same leadership skills and attributes as the scannable form. Plotting forms are available to enable on-the-spot development of both raw and percentile scale scores. These forms are used primarily for demonstrations and indoctrination.

Disk-based and on-line software for self-administering surveys is also available through the vendor. The cost of the software version is the same as the vendor-scored version.

OTHER CONSIDERATIONS

Cost

The SLP is sold through regional distributors to consultants and end-users. End-user prices are:

Quantity	Price per survey, including scoring
1-100	$20
101-999	$17
1,000+	$14

Meaningful Measures costs $42.50. Resource Guides are $25 per bound copy.

Composite Reports are $65 each. Additional reports and special add-on features are available, prices upon request.

Length of Instrument

The SLP consists of 85 items and 3 open-ended questions. It can be completed in 25 to 30 minutes.

Open architecture allows addition of items at client's request.

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THE SURVEY OF MANAGEMENT PRACTICES (SMP)

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Copyright Dates: 1981-1997

Statement of Purpose

The Survey of Management Practices (SMP) provides managers feedback on behaviors they need to change in order to improve effectiveness and quality of working life. The SMP measures the skills and attributes managers employ in day-to-day operations as they work to achieve organizational goals, focusing on their interactions with direct reports (Wilson & Wilson, 1989).

Target Audience

The SMP is intended for managers at all levels, from first-line supervisors to top management, in business, industry, education, and governmental organizations.

Feedback Scales

Observable skills (A through K) are grouped by 6 Phases of the Management Task•Cycle® plus 4 Interpersonal Relations scales (L through O) and 8 Group Motivation and Morale scales (P through W).

MANAGEMENT TASK•CYCLE

Phase I: Making Goals Clear and Important

(A) *Clarification of Goals and Objectives* (7 items)
Conveying to others what you are trying to accomplish. Sample item: Tells group members how their jobs, work, and goals relate to organization's goals.

Phase II: Planning and Problem Solving

(B) *Upward Communications* (8 items)
Making the best use of your co-workers' ideas and suggestions. Sample item: Shows a sincere interest in suggestions from members of the work group.

(C) *Orderly Work Planning* (7 items)
Increasing effectiveness by keeping yourself organized and systematic. Sample item: Plans the work so it keeps running smoothly.

(D) *Expertise* (7 items)
Knowing your organization, its policies, and how to get things done. Sample item: Knows how to get things done or find the resources to do them.

Phase III: Facilitating the Work of Others

(E) *Work Facilitation* (6 items)
Being sure that others know how to do what they are supposed to do; coaching and counseling co-workers. Sample item: Is a helpful coach and trainer.

Phase IV: Feedback

(F) *Feedback* (8 items)
Letting others know how you evaluate their work. Sample item: Always lets people know where they stand and how they are doing their jobs.

Phase V: Exercising Positive Control

(G) *Time Emphasis* (6 items)
Getting things done on time and meeting deadlines. Sample item: Is very concerned about getting things done on time.

(H) *Control of Details* (5 items)
Staying on top of details. Sample item: Keeps track of performance on each job.

(I) *Goal Pressure* (6 items)
Expressing dissatisfaction with progress; may, on occasion, punish people for mistakes. Sample item: Complains vigorously if goals are not met.

(J) *Delegation/Permissiveness* (6 items)
Achieving a balance between being too loose and permissive and being too tight and restrictive. Sample item: Has confidence in the ability of the group to do their own planning.

Phase VI: Reinforcing Good Performance

(K) *Recognition for Good Performance* (7 items)
Acknowledging and recognizing optimum effort. Sample item: Compliments individuals who contribute significantly to the group's effort.

INTERPERSONAL RELATIONS

(L) *Approachability* (5 items)
Being open and friendly to others. Sample item: Is easy to approach and communicate with.

(M) *Teambuilding* (6 items)
Contributing to good team functioning. Sample item: Feels it is important to get the group to work together as a team.

(N) *Interest in Subordinate Growth* (8 items)
Giving challenges and support needed to meet the challenges. Sample item: Is interested in helping people in their careers.

(O) *Building Trust* (8 items)
Building the trust of others. Sample item: Is trusted by people in the work group.

GROUP MOTIVATION AND MORALE

(P) *Work Involvement* (5 items)
Showing interest in the work. Sample item: The work is stimulating.

(Q) *Co-worker Competence* (6 items)
Contributing to the competence of the group. Sample item: The people are highly competent.

(R) *Team Atmosphere* (6 items)
Reflecting the friendliness and cooperation within your group. Sample item: Co-workers in the group are friendly.

(S) *Opportunity for Growth* (6 items)
Attitudes toward opportunity of advancement. Sample item: Chances for advancement are good.

(T) *Tension Level* (6 items)
Assessing conditions affecting stress. Sample item: We feel a lot of stress in our work.

(U) *Organization Climate* (5 items)
Focusing on the policies and practices of the organization as a whole. Sample item: We feel the organization is better to work for than most.

(V) *General Morale* (5 items)
Assessing generalities about happiness at work. Sample item: All in all, I am quite happy.

(W) *Commitment* (6 items)
Assessing the motivation of your group toward doing a good job. Sample item: We work hard because we like it here.

Response Scale

Respondents are asked to rate the manager using a range of 1 to 7. Anchors are provided at the ends of the scale and at the midpoint.

1 = Never or to a Small Extent
4 = Usually or to an Average Extent
7 = Always or to a Great Extent

INSTRUMENT DEVELOPMENT

Origin of Items: Theory/Experience

The SMP is drawn from task cycle theory applied to the managerial process (Wilson, O'Hare, & Shipper, 1990). According to this theory, organizational behavior consists of a series of tasks. (A task is seen as consisting of sequential phases: a goal, a plan, resources, feedback, adjustment, and reinforcement.) The sum of repetitions of varying tasks totals up to the work of the unit or individual. This recycling of tasks is the means by which influence is exercised in organizations. The task cycle theory draws heavily on cognitive learning theory (Bolles, 1972; Hilgard, 1956; Hilgard & Bower, 1966; Tolman, 1932).

The aim of the theory is to provide a practical and meaningful conceptual framework to study the sequence of skills. Skills are defined here as the process by which managers exert influence through communication of appropriate behavioral signs. Presumed is a cycle of behaviors that can be directly translated into managerial responsibilities. Every manager potentially goes through the relevant phases of the cycle with every task he or she supervises or implements. Each task iteration, therefore, becomes equivalent to a learning trial. Managers learn about the individuals with whom they interact, and relevant others learn about the manager. All parties ascertain what behaviors to expect on the next task so they can adapt to those expectations.

Development of Feedback Scales

Items were written to capture hypothesized dimensions of behavior relevant to the managerial role. The scales were constructed by factor-analyzing data on 415 managers. Analyses were conducted separately by respondent category (self or raters).

Scales created from these item clusters were intercorrelated to examine the overlap in the dimensions. The author set a target of 50% independence between scales (as measured by the reliability of difference scores statistic).

Second-Order Factor Results

Recent factor analysis reveals the importance of 3 superfactors in the SMP as well as other Clark Wilson surveys. The 3 broad factors, or competencies, that contribute to a manager's success in his or her role are: *Structure, Relations,* and *Drive.*

Structure includes the scales that measure operational skills, such as Clarification of Goals and Objectives, Orderly Work Planning, and Expertise. *Relations* includes dimensions that address interpersonal relations, such as Encouraging Upward Communications and Participation, Teambuilding, and Recognition. *Drive* refers to control skills such as Control of Details and Goal Pressure. A manager's ability to balance these 3 competencies marks his or her effectiveness and contributes to high ratings in attributes such as Building Trust.

The results from the second-order factor studies have led to revising the SMP and other surveys along with developing an additional section for the Feedback Report, which will allow participants to calculate their own scores and assess their standing in the attributes like Effectiveness and Building Trust.

Reliability

Test-retest

Currently, no data are available.

Internal consistency

The most recent study (Shipper, 1995) of the psychometric properties of the SMP examined 620 subordinate ratings of 72 administrators from a large Southwestern hospital. The alpha coefficients ranged from .77 (Control of Details) to .98 (Recognition for Good Performance) with the average coefficient equal to .92.

Interrater

Interrater consensus among 620 subordinate ratings of 72 administrators (Shipper, 1995) was measured using the Interrater Agreement Index (James, Demaree, & Wolf, 1984). The coefficients range from .90 to .93 with the average index equal to .92.

Validity

Shipper (1995) examined the construct and divergent validity of the SMP using the generalized least-squares solution from the EQS program (Bentler, 1992) for confirmatory factor analysis with data from 236 managers from governmental organizations.

The results of the confirmatory factor analysis indicate a normed fit index of .97, a non-normed fit index of .982, and a comparative fit index of .983. On the criterion that the normed fit index be greater than or equal to .90, the results suggest a high degree of construct validity (Shipper, 1995).

Other Research

The SMP-JE is a version of the SMP-J (copyright 1984) that includes the 45-item survey Group Motivation and Morale. In 1991, Frank Shipper developed a parallel questionnaire with frequency-based response scales and item stems to test whether (1) subordinates recognized the difference between frequency and mastery as measured by the SMP-JE of managerial behaviors, and (2) which form of managerial behavior (frequency or mastery) more closely associated with work unit performance. The results indicated that subordinates can distinguish between the 2 forms of managerial behavior, and that mastery was associated with managers of high-performing work units, whereas frequency was associated with managers of low-performing work units (Shipper, 1991).

There are numerous psychometric studies on the properties of the SMP-JE (e.g., Shipper, 1991; Wilson, 1978; Wilson, O'Hare, & Shipper, 1990; Wilson, Wilson, & Wilson, 1996). The most recent work on the SMP-JE is reported above (Shipper, 1995).

Research investigating managerial derailment, personality, and skills (measured by the SMP-JE) among 1,035 middle managers from a large high-technology firm indicated that different skill profiles are required for success at different career stages (Shipper & Dillard, 1994). A lack of humility was also found to be associated with early and late career derailment. Those managers who "lacked humility" tended to rate themselves higher than others rated them, while "fast-trackers" tended to rate themselves lower than others rated them.

A study of the managerial skills measured by the SMP-JE of 177 female and 815 male managers from a nontraditional organization found the same managerial profile for both men and women, but revealed that gender may be a moderating variable in how managerial skills are acquired (Shipper, 1995). Additional research on the same sample indicated that the skills required of successful managers in this organization were the same for women as for men (Shipper & Davy, 1996). In addition, the study found direct links between managerial skills and performance.

A study of the relationship between leadership behavior and subordinate stress used the SMP-JE with 343 leaders, their bosses, and subordinates. The study indicates that leaders underestimate the role of leader delegation and subordinate participation in lowering the experience of stress in subordinates (Offerman & Hellmann, 1996).

A Caution Statement on Misinterpretations

Clark Wilson surveys are designed to be used for coaching and developmental purposes only. The individual receiving feedback may share the confidential report with others at his or her discretion. Misuses of Clark Wilson instruments would consist of not honoring the confidential nature of the feedback report or using the survey results to take personnel actions. The surveys should not be used for performance appraisal, selection, or any other actions not related to individual development.

International Use

Translations
The SMP is translated into French, German, Polish, Portuguese, Russian, and Spanish.

International norms
Norms are available for all the translated instruments.

Users have successfully based feedback on U.S. norms in Latin America, Europe, and the Pacific Rim. In Canada, however, scores on the French version were much higher than on the English form in the same national agency. In Poland, under the former Communist regime, subordinate scores were all at or above the 90th percentile.

Internationally tested for validity/reliability
Internal consistency of the French, Portuguese, and Spanish versions of the SMP has been examined. No substantial variation from the English version was found.

A comparison of SMP results from Asian, European, and U.S. managers from a multinational high-tech organization has been performed. Asian managers (N=233) were rated higher than their European (N=533) and American (N=788) counterparts. Asians were rated highest by their subordinates on 13 of the 15 scales, 12 of which were statistically significant. Analyses of self-ratings showed similar results. On 8 of the 15 scales, Asian managers rated themselves higher.

Comparisons of European and U.S. managers' ratings by subordinates (European, N=533; U.S., N=788) showed that U.S. managers were rated significantly higher than Europeans on 5 of the 15 SMP scales. Comparisons of subordinate ratings (European, N=31; U.S., N=679) of senior managers showed European managers' ratings to be higher on 5 of the scales and U.S. managers' ratings higher on 2 of the scales.

CHARACTERISTICS OF FEEDBACK

The Clark Wilson Group (CWG) Feedback Report is currently under revision and will be available for users in 1998. Enhancements will include: improved graphic displays of data; list of 10 highest and 10 lowest scoring items; second-order factor analysis of data and individual profiling; and a Task•Cycle graphic on each page to facilitate learning from the model.

Types of Feedback Display: LINE GRAPH and NARRATIVE

The narrative portion of the feedback provides written detail of raters' responses on each of the scales and items. This portion of the feedback also provides a written explanation of how the scales are interrelated and how the task cycle model relates to the managers' overall performance.

Item-level feedback is provided in the narrative portion of the feedback.

Breakout of Rater Responses

Self-report data is compared to data from boss, direct reports, and other raters. Rater responses can be combined at the request of the client.

Feedback Delivery Strategies

Comparison to norms
Wilson provides direct comparisons to the norms in the narrative portion of the feedback and indirect comparisons when the scores are graphed as percentiles.

The norms for the SMP are based on 25 years of accumulated results from over 1,000,000 administered surveys. Norms for selected industries, occupations, and organizations have also been developed. Wilson encourages organizations to establish their own norms.

Highlighting largest self/rater discrepancies
The SMP highlights self and rater discrepancies by listing whether the scales are a visible strength (self-rating is high and other ratings are high), unrealized strength (self-rating is lower than other ratings), acknowledged soft spot (self-rating is low and other ratings are low), or a blind spot (self-rating is higher than other ratings).

SURVEY OF MANAGEMENT PRACTICES (JE)

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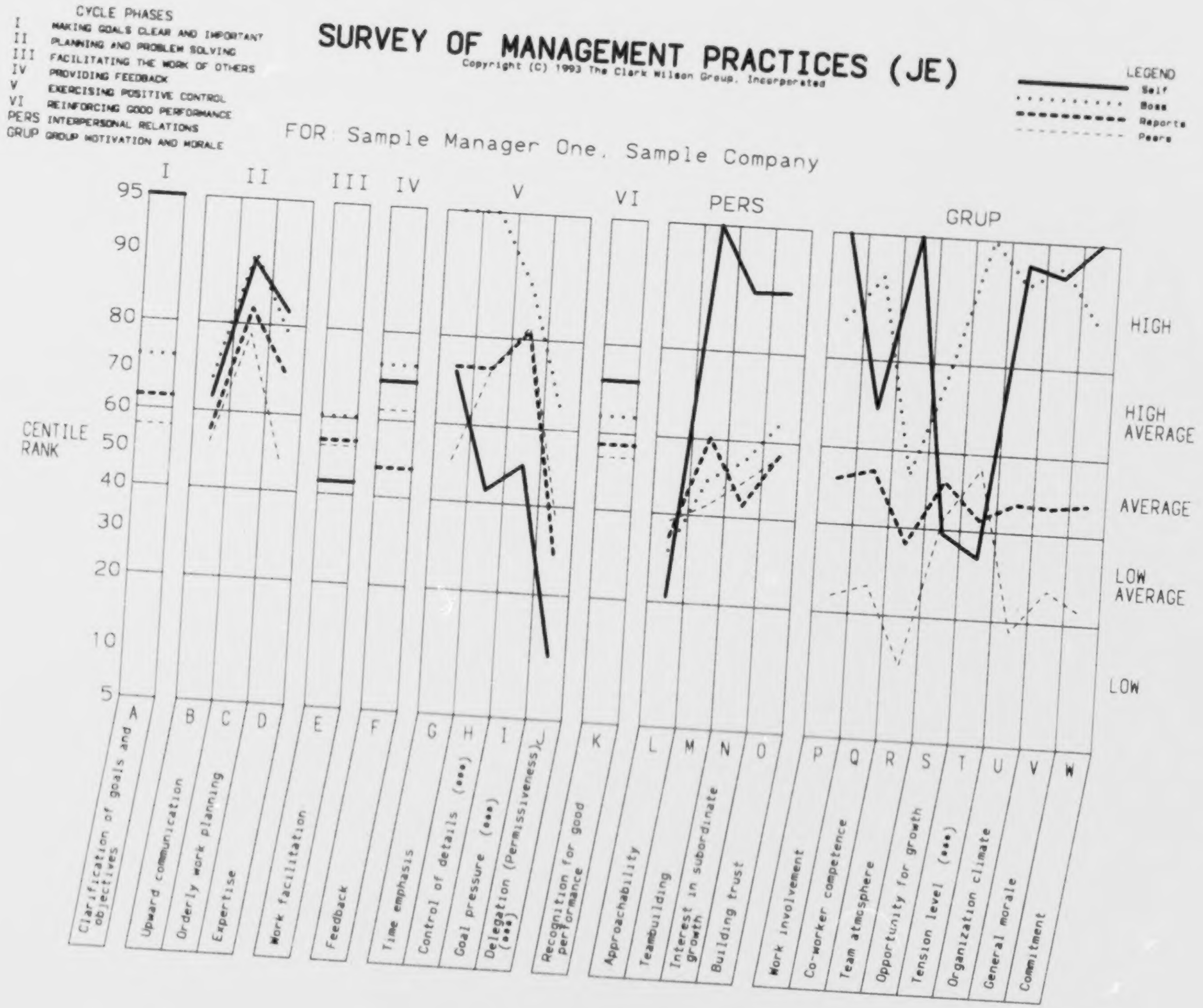
FOR: Sample Manager One, Sample Company



315

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Feedback to Managers

Item-level feedback
Included in the narrative report.

"Do more/do less"
Three open-ended questions are optional for the SMP: (1) What does this manager do that should be continued? (2) What should this manager do to be more effective? (3) What does this manager do that should be stopped?

Others
An asterisk is used to indicate items where there was disagreement within a group of raters. A Disagreement Index or DI of over 1.2, which is 1 standard deviation, is used to suggest that the manager may be inconsistent in the way he or she relates to others.

SUPPORT AND DEVELOPMENTAL MATERIALS

Support for Participant

Guides
The *Personal Planning Guide* is a self-administered guide that leads the participant through a detailed examination of survey feedback. Along with an inventory of strengths and soft spots, the guide includes exercises and assistance in developing an Individual Action Plan.

Two *Resource Guides*, 1 for Management and 1 for Leadership, offer developmental suggestions and tips organized by the dimensions of CWG surveys. It is also an aid for the coach or feedback-giver as a resource of practical ideas for participants who need this developmental help.

Post-assessment
After 6 months or a year, the SMP can be readministered for Time 1–Time 2 comparisons.

Vendor hotline
Participants can call a toll-free number for further assistance.

Summary worksheets
Worksheets are provided in the development and planning guide.

Support for Trainer

Trainers' guide/manual
Meaningful Measures (MM; Wilson, Wilson, & Wilson, 1996) covers the full battery of CWG feedback surveys. It is written for all human resources professionals interested in implement-

ing a 360-degree-feedback system. MM contains important background information: the theory and research behind CWG instruments, a full description of surveys with training aids, and a practical guide about how to implement a 360-degree-feedback program. A second volume of MM includes sample surveys, feedback reports, and validation studies and is available at the time of qualification.

Workshop
Task•Cycle Management is a 6-module course structured around the 6 phases of the Management Task•Cycle. A participant who attends this workshop will receive his or her Feedback Report and then participate in the readings and exercises designed to strengthen the skills measured by the SMP. The workshop is also designed to support the *Survey of Peer Relations* (SPR), which is a complementary survey of the SMP for independent contributors.

Additional support
Support for trainers to develop their own, internal norms is available. Time 1–Time 2 comparisons are useful for measuring the efficacy of a training program. Composite reports of scores for the larger work group, department, or company also provide a "big picture" profile that is useful for comparison to individual profiles.

Certification Requirement

A Qualification Workshop is offered twice a year through CWG headquarters and more frequently through regional distributors, or upon request for a private session. It introduces users to the theory, development, and interpretation of the instruments, and provides practical assistance in implementing a feedback program.

Scoring Process

The vendor and regional distributors provide computer-scoring services. Turnaround time for scoring is typically 5 working days for 300 to 500 surveys. This includes reports for individuals and aggregates for groups of participants.

A hand-scored version (Form JQ) is available. It covers the Managerial Skills and Attributes but not the Group Motivation and Morale scales. Plotting forms are available to enable on-the-spot development of both raw and scale scores. Without the computer analyses and narrative printouts, these forms are used primarily for demonstrations and indoctrination.

Disk-based and on-line software for self-administering surveys is also available through the vendor. The cost of the software version is the same as the vendor-scored version.

OTHER CONSIDERATIONS

Cost

Instruments are sold through regional distributors to consultants and end-users. End-user prices are:

Quantity	Price per survey, including scoring
1-100	$20
101-999	$17
1,000+	$14

Meaningful Measures is available for $42.50. Resource Guides are $25 per bound copy. Personal Planning Guides are $17.50 each.

Composite Reports are $65 each. Additional reports and special add-on features are available, prices upon request.

Length of Instrument

The SMP has 145 items; 100 of the items pertain to 11 different skills and 4 interpersonal-relations attributes. The remaining 45 items are located on the back page of the booklet in a "Survey of Group Motivation and Morale." The instrument can be completed in approximately 25 to 30 minutes.

The SMP has an open architecture to allow addition of items at client's request.

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* Winner of the 1996 Walter F. Ulmer, Jr., Applied Research Award, Center for Creative Leadership.

** Selected as the Outstanding Paper on Management Development at the Academy of Management Meeting, Dallas, 1994.

SYSTEM FOR THE MULTIPLE LEVEL OBSERVATION OF GROUPS (SYMLOG®)

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Copyright Dates: 1983, 1984, 1986, 1990, 1991, 1997

Statement of Purpose

The SYstem for the Multiple Level Observation of Groups (SYMLOG) is used to measure patterns of values and behavior and to provide feedback to individuals, groups, and organizations on their leadership, teamwork, and organizational culture. SYMLOG is unlike many other multi-rater instruments in that it is multidimensional in its focus, target audience, and feedback design.

Target Audience

SYMLOG is appropriate for any level of manager. In fact, it provides detailed analysis of effectiveness for any individual as well as for groups and organizations of any size.

Feedback Scales

SYMLOG ratings utilize a unique form of measurement. It may be somewhat erroneous to think about scales in the usual psychometric sense for the SYMLOG measurement system, since measurements are not made by combining item responses into "traditional" feedback scales. Instead, SYMLOG uses a 3-dimensional model derived from factor analysis.

Two SYMLOG rating forms are available: (1) Individual and Organizational Values and (2) Interpersonal Behaviors.

The 26 SYMLOG items comprise a 3-dimensional space. The 3 axes of the value domain are: (1) Values on Dominance versus Submissiveness; (2) Values on Friendly Behavior versus

Unfriendly Behavior; and (3) Values on Acceptance of, versus Opposition to, the Task-orientation of Established Authority. When the 26 SYMLOG items from the Interpersonal Behaviors form are used, the 3-dimensional space is defined slightly differently. At the interpersonal behavioral level the 3 dimensions are: (1) Dominant versus Submissive Behavior, (2) Friendly versus Unfriendly Behavior, and (3) Controlled versus Expressive Behavior.

Each of the dimensions is bipolar, with a zero point, or zone of conflict, in the middle of each dimension. All intersect at the same zero point, and thus define the 3-dimensional "space"—a domain within which the interconnected dynamic processes at the various levels shape themselves and each other, in response to different conditions, into various kinds of "fields," each with overall properties of its own. SYMLOG code letters are used to represent 6 directions from the zero point outward in the evaluative space and are labeled U (Upward), D (Downward), P (Positive), N (Negative), F (Forward), and B (Backward).

The examples below illustrate the way the items are written and the bipolar dimensions they are intended to measure. Each dimension is measured by a total of 18 items.

INDIVIDUAL AND ORGANIZATIONAL VALUES

Perceived Values on Dominance versus Submissiveness
Sample item:
U Individual financial success, personal prominence, and power.
D Giving up personal needs and desires, passivity.

Perceived Values on Friendly Behavior versus Unfriendly Behavior
Sample item:
P Equality, democratic participation in decision making.
N Self-protection, self-interest first, self-sufficiency.

Perceived Values on Accepting versus Opposing the Task-orientation of Established Authority
Sample item:
F Conservative, established, "correct" ways of doing things.
B Change to new procedures, different values, creativity.

INTERPERSONAL BEHAVIORS

Dominant versus Submissive Behavior
Sample item:
U Dominant, active, talkative.
D Silent, passive, uninvolved.

Friendly versus Unfriendly Behavior

Sample item:

P Friendly, democratic, group-oriented.
N Self-protective, unfriendly, negativistic.

Controlled versus Expressive Behavior

Sample item:

F Serious, logical, objective.
B Expresses emotions, shows feelings.

Response Scale

Respondents rate the frequency with which the image (person, group, etc.) is generally perceived to show each of 26 particular kinds of values or behavior. The response scale is:

Rarely = 0 points
Sometimes = 1 point
Often = 2 points

INSTRUMENT DEVELOPMENT

Origin of Items: Theory/Research/Experience

SYMLOG is a comprehensive synthesis of findings, theories, and methods from psychology, social psychology, sociology, economics, political science, and several related disciplines. The theory underlying this instrument is both a "field theory" and a "systems theory." The empirical measurements are designed to take into realistic account the assumption that every pattern of behavior of an individual or a group is organically interlinked with other patterns and with a larger context. The interlinked processes have the properties of a "dynamic field."

The author interprets the large body of research and theory that led to SYMLOG to indicate that mental and overt behavioral subprocesses activated in interpersonal relations tend to shape themselves, by dynamic interplay, into larger domains of essentially 3 major dimensions. Over time, the effects of doing things at more concrete levels are shaped into a parallel 3-dimensional domain of more abstract values. Processes at all of these levels constantly interact and affect each other, but with various time lags and degrees of resistance to change. Discrepancies between levels (for example, between values and behavior) can be measured and made explicit to members of a group by feedback.

According to these assumptions, in order to plan and act most effectively to change patterns of behavior in a group, one needs to be able to locate the most important variables operating in the group and its situational context, and to find the most important interlocks among them. As a start, one needs to have in view the total situation as the various people involved actually perceive it to be.

The 2 sides of each dimension, and especially the 2 extreme ends, are evaluatively opposed to each other in the minds of most people. If a person at a given time perceives, or believes, that a certain kind of behavior or value at 1 end affects teamwork positively, then the kind of behavior or value at the opposite end is likely to be perceived or believed to affect teamwork negatively. The evaluative incompatibility of the 2 ends of each dimension creates potential for polarization. People tend to be drawn toward (unify with) others they perceive to hold "good" values (that is, values similar to their own) and to polarize with other persons they perceive to hold values for teamwork that are opposite from their own. The SYMLOG system is designed to measure and display the patterns of team members and their values, both as rated by individuals separately and as combined into group averages. The results, used in feedback, are visible in the field diagrams, bar graphs, and scatterplots.

Most effective leaders consistently demonstrate values for teamwork in their own behavior and consequently draw others toward them into a unified team. Leaders are effective in team building when they are perceived, over time, to behave in ways that indicate that they genuinely value teamwork, the task, and other team members.

Development of Feedback Scales

Early in the original process of development, many other measurements including factor analyses and item-to-scale correlations were made in a large, carefully designed study. This was done in an academic-laboratory setting using a specially designed set of stimuli—a selection of film clips showing 40 episodes of real family interaction. Film clips were used so that the traditional kinds of test-retest and split-half reliabilities could be obtained. Real-time scoring of the interaction by observers was also used as a parallel method so that alternative-method tests could be made, and these also provided evidence of validity.

The results of this study were strongly supportive of the basic concepts and the 3-dimensional structure of the space, reliability, and validity of most of the items, although some of the items were not completely satisfactory. Behavior items only were included in this study. The value items presently used in application were developed subsequently. The behavior items have been revised twice since this study.

A number of subsequent technical academic studies of various kinds have been made, both in this country and abroad (Germany, France, The Netherlands, Italy, Portugal, Spain, Norway, Sweden, Poland, Thailand, Vietnam, Brunei, Indonesia, Malaysia, Philippines, Australia, and South Africa) with comparable results (see *The SYMLOG Practitioner*; *International Journal of Small Group Research*; and *Small Group Behavior*).

To cite 1 representative independent academic study, SYMLOG Behavior scores produced by 2 independent groups of raters showed correlations for the 3 scales (i.e., UD, PN, and FB) respectively to be .91, .95, and .88 (Rywick, 1987). The Behavior Form used in that study has been revised since that time, but updated information on the reliability of the current form is not yet available. There is reason to believe that the correlations will be equally high, possibly higher.

Reliability

Test-retest

A recent study conducted by the SYMLOG Consulting Group with Royal Roads University in Canada involved 60 students in a test-retest/repeated measures design using traditional paper-and-pencil forms and ratings over the Internet using the Individual and Organizational Values rating form. The overall correlation between the 2 measures was .997.

Internal consistency

SYMLOG does not use the traditional approach of designing a set of items that are meant to measure the exact 2 ends of a single selected dimension. Instead, proceeding from the theory that the extremes of the domain to be measured are distributed in a more or less continuous way over the whole surface of the spherical probability space, SYMLOG theory approaches the measurement problem by designing and refining the items so that they are distributed by specified angular separations from each other over the whole surface of the spherical space.

Each of the 26 items is designed to function as a probe that taps the meanings and evaluations of a specified image out along a specific vector from the center of the space. For broader and more reliable measurement, items are selected and added together algebraically in various appropriate combinations in such a way as to measure the location of the rated image on each of the 3 major dimensions. If one desires to do so, the location on each of the 6 major reference vectors may be determined. In still more detail, the location of a rated image on each of the 20 intermediate vectors of the 3-dimensional spherical space may be determined. The relevant combination of vectors is specified mathematically.

Using well-designed and well-tested items, the location of an image can be measured very accurately, with a close fit to the mathematical model and with very satisfactory validity and reliability by high psychometric standards.

It is a very valuable aspect of the measurement that the rated image is given a definite location in the 3-dimensional space, as seen in the particular polarized rotation that best expresses "good" directions versus "bad" directions from the perspective of the rater (or in the case of a group average field diagram, the average, or compromise perspective, of the raters). Such a form of simultaneous scaling on 3 dimensions has many interesting, and useful, psychometric properties. The method of measurement is closely related to factor analysis, and historically it was developed from a factor-analytic approach. It is also similar in important ways to measurement in terms of "circumplex" models. But, since differences in values over the surface of the space are postulated to be continuous, and the domain is 3-dimensional (not 2-dimensional), many circumplexes around the sphere can be measured.

As may be seen from the above descriptions, the usual statistical measures of internal consistency (high intercorrelation of items that are all supposed to measure the same vector or location on 1 dimension) are not appropriate for items designed to be separated from each other by specified angular distances and distributed systematically (as the SYMLOG items are) in order to cover the whole surface of a 3-dimensional sphere. The internal consistency or correlation of the items used to measure a given vector, by design, must be less than 1.00.

Recent studies have demonstrated satisfactory item-to-scale correlations for the revised items and delineated methods for adapting the items for use in particular populations and cultural contexts (see Bales, Koenigs, & Roman, 1987).

Factor-analytic findings are generally and repeatedly supportive of the basic dimensional conceptions of the 3-dimensional SYMLOG space and of the behavior and value content associated with each of its 26 measured vectors. The various reliability measures of the items are usually well within the acceptable range for psychometric use, although the studies come from many sources, in both this and other countries (principally from German academic researchers). The studies have been conducted with many variations in designs and controls and with alternate methods of producing the data, such as act-by-act scoring by observers, and content analysis of transcribed protocols of verbal free-description of each other as given by group participants. The average empirical value profiles obtained from numerous aggregated populations of raters in business-task-oriented teams are extremely similar to each other. Correlations between the observed profiles and the SYMLOG Normative Most Effective Profile over the 26-item profile shape range between .80 and .90.

Interrater
The split-half correlations on each of the 26 items range from .74 to .96 with only 2 items below .80. The reliability of the scales as a whole is quite high, with correlations ranging from .95 to .99 (Bales, Cohen, & Williamson, 1979).

Validity

An early doctoral dissertation study (Hogan, 1983) tested the SYMLOG Leadership Effectiveness Profile as a predictor of managerial performance. The hypothesis was that the Most Effective Behavior Profile for middle-level managers in medium- to large-sized organizations would be relatively high, yet balanced, on Dominance, Friendliness, and Task-orientation (that is, the location on all 3 of the SYMLOG dimensions would be required for the most successful prediction, and the "most effective" location would be close to the UPF vector).

The present SYMLOG Normative Most Effective Profile confirms and refines this vector location.

The study was made at a large well-known assessment and training center: 40 middle-level managers, averaging around 40 years of age, who came for a week of assessment had been rated by some 5 to 7 subordinates, peers, and superiors using the then-existing 26-item Behavior Profile. Data were gathered for each participant on 4 criteria of excellence: 2 were based on salary (present level; rate of increase over a time period); and 2 were based on status level in the organization (present status; increase in status over a time period).

Findings showed that the SYMLOG Leadership Effectiveness Profile (the hypothesized pattern of behavior items) ratings, as made by subordinates, was significantly related to the external criteria and was by far the best of any of the tests made in the course of the assessment. There were almost no other significant correlations. Tests which might have been subject to influence by the participant's own self-assessment or self-presentation were, in general, very poor predictors. Tests included the Behavioral Event Interview, Picture Story Exercise, Leader Behavior Description Questionnaire, Jackson Personality Research Form, Wonderlic Personnel Test, and several simulation exercises.

An independent professional-research organization conducted a study for the SYMLOG Consulting Group on significant differences between Navy "Commands" (intact units under the same commanding officer). Each of 12 Commands was judged as "superior" or "average" by the Navy, using their regular performance tests for intact units. The design included comparison of surface ships, submarines, and air units within each of the categories of "superior" and "average." Instruments included SYMLOG behavior ratings (an early form).

A study (unpublished) by Wallace Bachman of the SYMLOG behavior ratings was made by a sample of the complete personnel of each of 12 Commands rating the members of the different status levels within the unit. No significant differences were found according to type of Command (surface, submarine, air). Significant differences of several kinds were found between "superior" and "average" Commands. The largest differences were at the senior-officer level, but there were also moderate differences in the aggregate profiles of the superior Commands as a whole and those of the average Commands.

The SYMLOG Behavior Profiles of the commanding officers (COs) of the "superior" units showed fundamental differences in pattern from the profiles of the COs of the "average" units. The aggregated COs of the "superior" units were rated more highly on the following items (wordings at that time): U–"active, dominant, talks a lot," UP–"extroverted, outgoing, positive," UPF–"a purposeful democratic task leader," UF–"an assertive, business-like manager," F–"analytical, task-oriented, problem solving"; but they were also rated highly on: UB–"jokes around, expressive, dramatic," UPB–"entertaining, sociable, smiling, warm," P–"friendly, equalitarian," PF–"works cooperatively with others," DP–"looks up to others, appreciative, trustful," and DPF–"gentle, willing to accept responsibility."

The aggregated COs of the units that were rated "average" rather than "superior" were rated more highly on: UNF–"authoritarian, controlling, disapproving," NF–"legalistic, has to be right," UN–"dominating, tough-minded, powerful," UNB–"provocative, egocentric, shows off," N–"unfriendly, negativistic," NB–"irritable, cynical, won't cooperate"; they were rated only slightly higher on: DN–"depressed, sad, resentful, rejecting," DNB–"alienated, quits, withdraws," and D–"passive, introverted, says little."

The aggregated ratings of the "superior" Commands compared to the "average" Commands (including all status levels) showed moderate, though not always significant, differences. The "superior" Commands had higher ratings on combinations of items with codes containing the letters U, P, and F (see above for the items), whereas the "average" Commands tended to be higher on items containing the N component (see above).

The "superior" Commands appeared to be unified, cohesive groups in the sense that the average locations on the field diagram for each level were all within 1 unit of the group average locations for all dimensions, except for the CO, who tended to be 2 units higher than the group on the U dimension.

On the bar graphs, the "superior" Commands showed a gentle and consistent gradient downward on dominance from the higher-to-the-lower-status levels. The "average" Commands did not show the same downward gradient. Instead, the junior officers and enlisted men in the "average" Command had a profile that was more similar to that of the "superior" Command.

A study (Sundstrom, 1988) of "superior" versus "average" work groups in the aerospace industry, using the SYMLOG Individual and Organizational Values Profile, found that the final field location of "superior" work groups was significantly different from the "average" work groups in nearness to the SYMLOG-defined most effective location. "Superior" work groups were significantly different from the "average" work groups when compared against the criteria used for the Baldridge Award categories for excellence.

Other Research

The SYMLOG Practitioner (Polley, Hare, & Stone, 1988) contains a preface surveying the state of applications of SYMLOG as of 1988; 18 articles describe in detail various applications that have been made. It also includes an annotated bibliography of 164 items. The *International Journal of Small Group Research* has been largely devoted to research on SYMLOG since its founding in 1985.

SYMLOG Field Theory: Organizational Consultation, Value Differences, Personality and Social Perception (Hare & Hare, 1996) contains recent research findings and case studies related to the use of SYMLOG in applied settings.

There are over 250 research studies conducted using SYMLOG. For a complete bibliography, contact SYMLOG Consulting Group.

A Caution Statement on Misinterpretations

Ownership of the data. Because of their range and depth, SYMLOG analyses and feedback materials have the power to contribute significantly to the success of planned change efforts. However, that same power, if misused, may be damaging to individuals and groups. To ensure that this does not happen, SYMLOG Consulting Group (SCG), and its certified consultants, are extremely careful in maintaining the code of ethics of action research—the people who generate the data own the data. No data are shared regarding any individual, group, organization or other participant unless this is done freely by the participant on his or her own initiative.

Data overload. Similarly, because of their range and depth, SYMLOG analyses and feedback materials can serve many types of interventions (for example, leadership development, integrating groups, or organizational development). Yet, all forms of analyses are neither equally applicable, nor efficacious, in every situation. As many certified consultants are quick to observe, the data can be so alluring that it is easy to succumb to the temptation to distribute more of them. The result may be acute data overload for the client. Care is required in selecting the specific types of analyses to be used for each unique application. To ensure parsimonious applications of the data, SCG offers a menu of consulting designs, which are applicable to the most common types of change efforts. If 1 of these designs cannot meet the needs of a particular situation, SCG works closely with the consultant to tailor the selection of feedback to clients.

International Use

Translations

SYMLOG has been translated into Anglicized English, Bahasa Indonesian, Bahasa Malaysian, Chinese, Danish, Dutch, Farsi, Finnish, French, German, Hebrew, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Russian, Spanish, Swedish, Thai, and Vietnamese.

International norms

Research conducted by SYMLOG Consulting Group and the Center for Creative Leadership in 8 European countries demonstrated that the perceptions of effective leaders and members, on average across countries, correlated .94 with the SCG normative profile. Additional research conducted in collaboration with the Center for Management Development in Canada involving 6 ASEAN countries produced similar results.

Internationally tested for validity/reliability
Item-to-scale correlational studies are currently underway or have been completed for the development of SYMLOG rating forms in Dutch, French, German, Indonesian, Italian, Japanese, Norwegian, Polish, Portuguese, Russian, Spanish, Swedish, Thai, and Vietnamese.

CHARACTERISTICS OF FEEDBACK

Types of Feedback Display: FIELD DIAGRAM, BAR GRAPH, and NARRATIVE

The information collected using the 26-item rating system is graphically displayed in field diagrams and bar graphs.

The field diagram is a map. The location of each member is shown as a small circle on the diagram, labeled with the member's code name. The circle in its particular location is called the image of the member. Members perceived as very dominant are shown in large image circles. Members perceived as progressively more submissive are shown in progressively smaller image circles. The circle size and location of the image in the field is preferably based on the average of the way all members see the values for teamwork (or behavior) generally shown by that member.

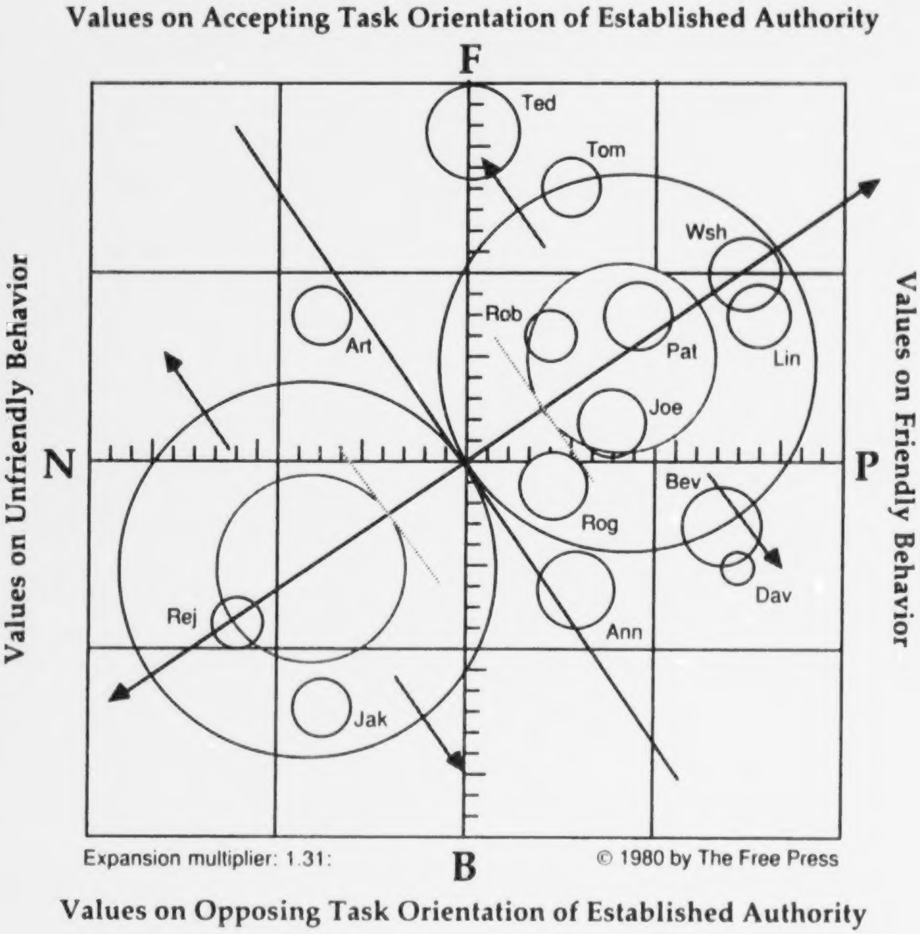
There are 3 types of field diagrams that can be produced. The Individual Rater's Field Diagram displays the ratings made by a single rater on his or her own self-image, along with his or her images of each co-worker. These images show his or her perceptions of the relationships of all parties involved in the team, work group, or situation.

When each member of the work team has rated every other member of the work team, another field diagram, the Group Average Field Diagram, displays the average location of all group members rated. The Group Average Field Diagram makes it possible to visualize interactions within the group.

The Scatterplot Field Diagram displays the various ratings made by a number of raters on a single image. For example, members of an organization may rate the values for teamwork they perceive as currently operative in the culture of their organization. A Scatterplot Field Diagram shows the unique location of the image as seen by each rater, as well as the total spread and the average location of the population of ratings. This display allows the raters to explore similarities and differences in their perceptions and to consider the appropriateness of the average location in the value field of the total scatter of images.

The SYMLOG Bar Graph displays the average response on each of the 26 items, displayed against the SCG normative research profile for effectiveness. A synopsis, which generally accompanies the bar graph, breaks the information into categories involving values (or

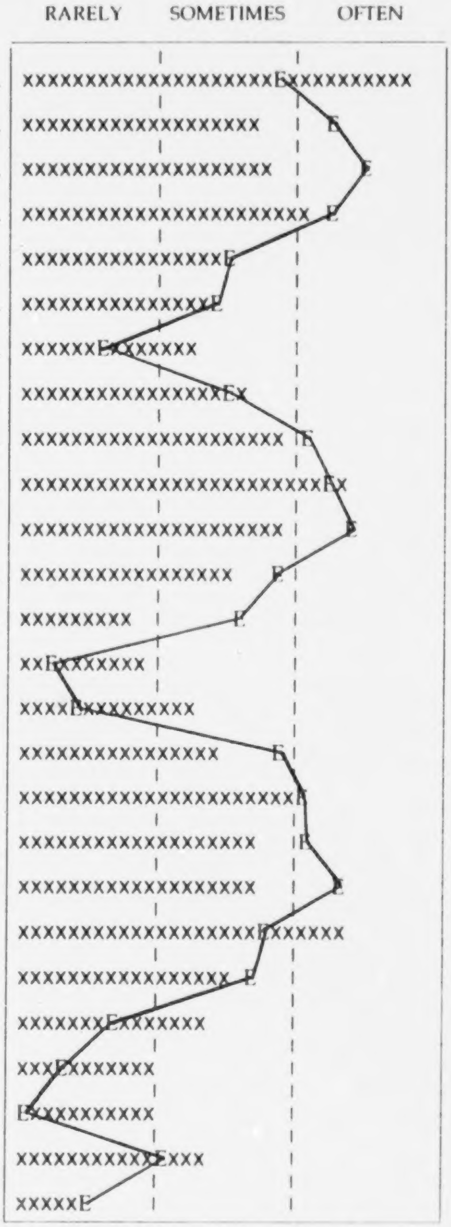
SYMLOG FIELD DIAGRAM


Values on Accepting Task Orientation of Established Authority
F
Ted
Tom
Wsh
Rob
Pat
Lin
Art
Joe
Values on Unfriendly Behavior
Values on Friendly Behavior
N
P
Bev
Rog
Dav
Ann
Rej
Jak
Expansion multiplier: 1.31:
B
© 1980 by The Free Press
Values on Opposing Task Orientation of Established Authority

Bargraph: Your Group on Your Group

SCG Frequency Bargraph of Individual and Organizational Values
Based on the ratings made on: Your Group

Type: P Final Location: 2U 4P 2F Number of Raters: 12
E = optimum location for most effective
x = the average rating on each item



- 1 U Individual financial success, personal prominence and power
- 2 UP Popularity and social success, being liked and admired
- 3 UPF Active teamwork toward common goals, organizational unity
- 4 UF Efficiency, strong impartial management
- 5 UNF Active reinforcement of authority, rules, and regulations
- 6 UN Tough-minded, self-oriented assertiveness
- 7 UNB Rugged, self-oriented individualism, resistance to authority
- 8 UB Having a good time, releasing tension, relaxing control
- 9 UPB Protecting less able members, providing help when needed
- 10 P Equality, democratic participation in decision making
- 11 PF Responsible idealism, collaborative work
- 12 F Conservative, established, "correct" ways of doing things
- 13 NF Restraining individual desires for organizational goals
- 14 N Self-protection, self-interest first, self-sufficiency
- 15 NB Rejection of established procedures, rejection of conformity
- 16 B Change to new procedures, different values, creativity
- 17 PB Friendship, mutual pleasure, recreation
- 18 DP Trust in the goodness of others
- 19 DPF Dedication, faithfulness, loyalty to the organization
- 20 DF Obedience to the chain of command, complying with authority
- 21 DNF Self-sacrifice if necessary to reach organizational goals
- 22 DN Passive rejection of popularity, going it alone
- 23 DNB Admission of failure, withdrawal of effort
- 24 DB Passive non-cooperation with authority
- 25 DPB Quiet contentment, taking it easy
- 26 D Giving up personal needs and desires, passivity

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behaviors) that almost always contribute to teamwork, are necessary but dangerous for teamwork, and almost always interfere with teamwork.

The narrative portion of the feedback, the Bales Report, is a commentary written by the instrument author, Robert F. Bales. The interpretations cover possible reasons for the results, and methods of increasing teamwork and becoming more effective.

Breakout of Rater Responses

A report may be based either on ratings made by 1 individual or on the average of a group of raters. The feedback and suggestions addressed to an individual are specific to the individual, whereas those addressed to the group as a whole are appropriate for discussion in the group as a whole.

If an intact group has made a set of SYMLOG ratings in which each member has rated every other member, the data may be averaged to produce a Group Average Field Diagram and a Group Average Bar Graph (Teamwork Effectiveness Profile) for the group as a whole. Each member may also receive his or her own view of the group, which makes it possible for the member to compare his or her ratings with the group average.

Feedback Delivery Strategies

Comparison to norms

The SYMLOG Leadership Effectiveness Profile displays the ratings received by an individual on each of the 26 items and a comparison of these ratings with a normative profile.

The SYMLOG Teamwork Effectiveness Profile displays the aggregated ratings received by a team of people for each of the 26 items. This bar graph is also compared to the normative profile.

The normative profile was developed by the author and the SYMLOG Consulting Group based on the aggregation of a number of relevant samples. The ratings of 567 participants in various programs at the Center for Creative Leadership make up 1 of the samples included. The question they rated was "What kinds of values does the most effective leader in a task-oriented team you have actually known show in his or her behavior?"

The SYMLOG Organizational Culture Profile displays the aggregated ratings made by a large number of raters from a particular organization responding to questions about the values for teamwork shown in the culture of their organization.

Highlighting largest self/rater discrepancies
Differences between self and other ratings are highlighted by their portrayal as locations in a 3-dimensional space.

Item-level feedback
Item-by-item comparisons are provided in the bar graph display and a bar graph synopsis outlines the items relative to the normative profile. The synopsis lists items that contribute to effective teamwork, items that may be necessary sometimes but are dangerous to teamwork, and items that almost always interfere with teamwork.

Highlighting high/low items and scales
Shown in high/low lists.

Comparison to ideal
The profile of a most effective leader is displayed as a line graph on the Leadership Effectiveness Profile.

Importance to job or success
Optional; available by special survey question.

"Do more/do less"
Shown on bar graph.

SUPPORT AND DEVELOPMENTAL MATERIALS

Support for Participant

Development and planning guide
A journal and planning guide are available.

Workshop
Workshops are available through certified SYMLOG consultants.

Post-assessment
Follow-up assessment is available upon request.

Vendor hotline
Customer service and personal consultation are available Monday through Friday, 8 a.m. to 5 p.m. (PST).

Summary worksheets
Summary worksheets are provided in the planning guide.

Support for Trainer

Trainers' guide/manual
Available for individual-, group-, and organization-level development programs.

Workshop
Participation in a certification workshop is required.

Supplemental norms
Yes.

Video
Some demonstration and instruction materials are available.

Internet
Conferencing, e-mail, and networking support are available.

Certification Requirement

Users must be trained and certified by the SYMLOG Consulting Group. SCG offers frequent certification training in San Diego, CA, or, upon request, on-site when conditions warrant. The training at San Diego requires 5 days and includes a written examination and ongoing professional development.

Completion of certification requires a first application at some local site with supervision (typically by telephone).

Scoring Process

Rating data on prepared rating forms can be sent by mail to SCG and printed reports can be returned by express mail. Turnaround time at SCG is about 24 hours. Ratings may also be made via the Internet. Reports can be returned via the Internet for printing at a local location allowing turnaround time to be reduced to a matter of a few hours.

Software for data input and printing of reports at local sites is available for a moderate annual fee under a license arrangement with SCG. Costs are reduced 10% for package programs and about 50% for custom programs when a licensee performs these operations on-site using SCG software. Turnaround time is 2 to 5 minutes by modem connection to central computing at SCG, San Diego.

OTHER CONSIDERATIONS

Cost

Costs are tied to the price of computer-generated reports and vary depending on the context in which it will be used. Individual Leadership Development, Teambuilding, and Organizational Culture Assessment costs range from $100 per individual to about $1,000 for organizational feedback. Feedback for a team usually runs about $750.

Length of Instrument

There are 3 major kinds of reports: (1) SYMLOG Leadership Effectiveness Reports, (2) SYMLOG Teamwork Effectiveness Reports, and (3) SYMLOG Organizational Culture Reports.

To provide data for the Leadership Effectiveness Reports, respondents are typically asked what kinds of values for teamwork (and behavior) they personally: (1) wish to show, (2) tend to reject in themselves or others, (3) expect co-workers to rate them as showing, (4) consider would be most effective, (5) actually do show themselves, and (6) are actually shown by their selected co-workers. (Note: The 26-item response set remains constant—the question on which the rater is focusing changes.)

To provide data for the Teamwork Effectiveness Reports, all team members make the same set of ratings as above and the data are aggregated for each member and for the group. For a more compact (but less informative) substitute procedure, each team member makes only 1 rating for each of the 26 ratings items applied to the team as a whole.

To provide data for the Organizational Culture Reports, usually a stratified random sample of the organization is asked to rate the values for teamwork that: (1) are currently shown in the organization, (2) are needed in the future for the organization to be most effective, and (3) people in the organization are actually rewarded for showing.

Each of these areas of application involves the use of a 26-item rating system to describe respondents' observations and perceptions of Individual and Organizational Values as these are currently shown, or need to be shown, by individual leaders and members, teams, or organizations. A parallel form, Interpersonal Behaviors, may also be used to make the interpretations and suggestions more concrete.

It takes a respondent about 5 minutes to make a set of ratings on 1 image (an image is a set of perceptions about a person or ideas about a concept). Typically a respondent is asked to rate from 2 to 7 images. The average time required for an individual to complete an entire set of ratings is about 15 minutes.

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TYPES OF WORK INDEX (TWI)

Vendor:	Team Management Systems 11718 Bowman Green Drive Reston, VA 20190 (703) 318-7206 Fax (703) 318-9527 76325.234@compuserve.com http://www.tms.com.au/
Authors:	Charles Margerison, Ph.D. Dick McCann, Ph.D.

Copyright Date: 1992

Statement of Purpose

The Types of Work Index (TWI) is a job analysis instrument for determining the critical work functions of teamwork.

Target Audience

The TWI is suitable for all managerial levels and organizational types.

Feedback Scales

Feedback is provided on 8 types of work scales. Each scale contains 8 items. These are:

Advising
The advising function is associated with gathering and disseminating information; keeping up-to-date with developments inside and outside the organization; and passing advice on to others to help them in their work. It requires a knowledge of "what" is going on and "where," and a focus on "consulting skills" so that information can be gathered quickly, accurately, and effectively. Sample item: Gathering information.

Innovating
The innovating function involves generating new ideas and new ways of doing things. Organizations need to introduce new products and services in order to keep up with or keep 1 step ahead of their competitors. To do this well requires original thought, imagination, and divergent thinking. Sample item: Generating ideas by divergent thinking.

Promoting

The promoting function is concerned with identifying opportunities and "selling" these opportunities to others, both inside and outside the organization. This often involves the application of "influencing" and presentation skills. High visibility throughout the organization may be necessary, as well as the ability to communicate the team or organizational "vision." Sample item: Selling new ideas to others in the organization.

Developing

The developing function is associated with turning concepts into "reality." Ideas are developed to produce practical products and services. In many cases it may also involve developing workable and practical solutions when problems arise. This function is also concerned with evaluating and assessing projects and testing out ideas. Sample item: Turning concepts into reality.

Organizing

The organizing function involves organizing people and resources efficiently by setting clear goals and objectives and making people accountable for their actions. It is also associated with the implementation of quick, effective action when problems occur, so that the planned objectives can be achieved. In summary, it is the function that ensures that the work of others is focused toward a common goal. Sample item: Directing and organizing others so that tasks can be accomplished.

Producing

The producing function focuses on outputs to ensure that tasks are completed to high standards of effectiveness and efficiency. It is the function associated with the regular delivery of products and services, requiring a systematic approach to work and an emphasis on the delivery of outputs on time. Sample item: Delivery of outputs on time.

Inspecting

The inspecting function requires an attention to detail and an emphasis on the monitoring of systems and outputs. It is also associated with a focus on accuracy, ensuring that work outputs are always delivered to the right quality. This function is the classic "control" function, where procedures are regularly monitored for their efficiency. Sample item: Checking accuracy of work outputs.

Maintaining

The maintaining function is a support function that ensures that proper standards of conduct and ethics are upheld and that quality is maintained. It is also associated with supporting others in the organization, so that corporate values and standards are preserved. Upholding the organization's aims, and an interest in helping others, are important aspects of this function. Sample item: Maintaining quality.

Response Scale

Respondents are first asked to complete Column A, which asks the question "Does this activity 'make the difference' between good and poor performance in this job?" The respondent must mark either "Yes" or "No."

Second, the respondent is asked to complete Column B for "Yes" responses only. Column B asks the question "If 'Yes' is checked in Column A, to what extent does this activity 'make the difference' between good and poor performance in this job?" To evaluate the degree of difference, the respondent is given 4 choices:

1 = To a little extent
2 = To some extent
3 = To a great extent
4 = To a very great extent

INSTRUMENT DEVELOPMENT

Origin of Items: Experience/Theory

The TWI is based on the authors' research on key work activities or work functions that are essential to managers' jobs. Eight work functions (Advising, Innovating, Promoting, Developing, Organizing, Producing, Inspecting, and Maintaining) comprise the Types of Work Model upon which the questionnaire is based.

Development of Feedback Scales

The TWI was developed from an initial item pool of over 150 items that were judged indicators of at least 1 of the Types of Work (Margerison & McCann, 1990). Items were selected based on their "understandability" and generalizability as perceived by expert judges; 4 different samples including line managers, public-service officers, management consultants, and administrators were used to example the reliability and discrimination of the scales. Scales were constructed based on item-to-scale correlations, using all ratings (N=754) and Cronbach's alphas for all ratings (N=754).

Reliability

Test-retest
Not currently available.

Internal consistency

Internal consistency was assessed using Cronbach's alpha coefficient. These analyses were performed on data from 754 managers' ratings. Alphas were .81 for Advising, .94 for Innovating, .82 for Promoting, .83 for Developing, .86 for Organizing, .85 for Producing, .88 for Inspecting, and .78 for Maintaining.

McDonnell (1988) found support for the TWI model when analyzing the factor-analytic structure. The 4 major dimensions of Organizing, Controlling, Advising, and Promoting were extracted as significant explanatory factors.

Interrater

Not currently available.

Validity

Early confirmation of the structural validity of the TWI model has been demonstrated by a study comparing similarity/dissimilarity ratings between 16 job titles, generating a 2-dimensional model that approximated the Types of Work Model (Davies, 1986).

Various analyses are available that relate the critical work function to job titles. This validates the model against known skills required of such jobs as accountants, production managers, salespersons, CEOs, R&D managers, and so on. For example, Inspecting, Producing, and Organizing prove to be critical for the accounting profession, whereas Advising, Innovating, and Organizing are critical for R&D managers.

A Caution Statement on Misinterpretations

It should be noted that a low match score between a person's work preferences (Team Management Index) and the job demands (TWI) is not a basis for assessing a low competence level. The match score simply determines the percentage overlap between preferences and job requirements. It does not in any way reflect the skills or capabilities of a respondent to perform in the position. There are many people with low matches performing at high competency levels. What a low match does signal is that the person may not necessarily be enjoying critical aspects of the job. If this is the case, the individual can decide whether job redesign or personal development is necessary.

International Use

Translations

None at this time. French, German, Italian, Spanish, and Swedish translations are underway.

International norms
None at this time, but international norms will be available soon.

Internationally tested for validity/reliability
Not currently available.

CHARACTERISTICS OF FEEDBACK

Types of Feedback Display: CIRCUMPLEX and NARRATIVE

The 8 work functions are positioned on a circumplex that reflects their degree of emphasis relative to each other. (Work functions positioned next to each other are more closely related to each other than they are to the work functions positioned further away.)

The narrative portion of the feedback provides detailed information on the participants' management patterns, potential problem areas that are often associated with their management style, and recommendations for improvement.

Breakout of Rater Responses

An average breakout is reported for all raters.

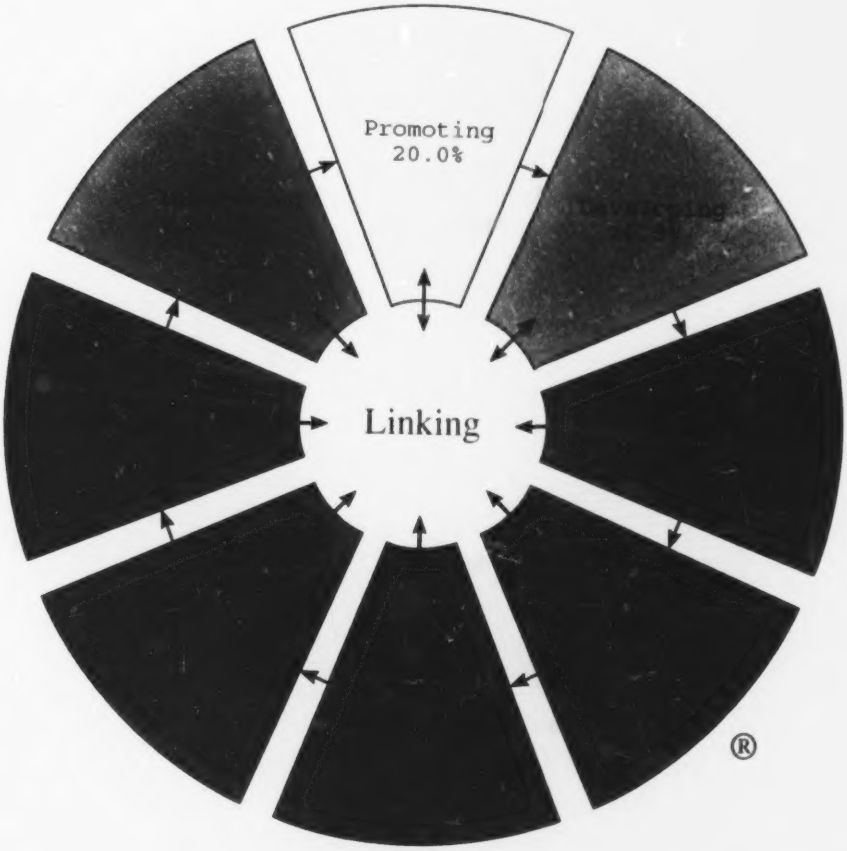
Feedback Delivery Strategies

Comparison to norms
Respondents compare their scores with those of all other managers who have completed the TWI via a percentile score that reflects the overall cumulative match of the job-critical functions to the job holder's work preference. The authors quote a median cumulative match of 68%. Matches in the range of 50% to 75% are considered normal. Matches over 75% are high and under 50% are low.

The TWI is normed on a cumulative sample of 1,518 managers representing 9 functional areas and 2 countries (Australia 77%, United Kingdom 14%) and 2 geographic regions (Europe 9%, Asia 2%). Norm data from the U.S. is currently being established. The corresponding norms and percentiles are provided in the training manual.

Highlighting largest self/rater discrepancies
The percentage of distribution across the 8 types of work functions is provided in a table of self, supervisor, and all raters' ratings. The authors note that a difference of more than 5 units between different people's ratings on any of the work functions indicates that different raters

Job Title	: SAMPLE PERSON
Organization	: SAMPLE ORGANIZATION
Date	: 03/19/1996



The above percentages are based on the Job Holder's rating

Types of Work Ratings By	Types of Work Index / Team Management Index Matches For
SAMPLE PERSON SUPERVISOR	SAMPLE PERSON

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perceive the job in significantly different ways. If this is the case, the respondent is encouraged to discuss provided questions with his or her raters.

Highlighting high/low items and scales
The authors offer a guideline—a rating of 16% in any function should be regarded as a relatively high score and anything under 8% should be regarded as a relatively low score. The highest and lowest scale scores are provided in tables in the narrative feedback report and displayed in the Overview graphic.

Importance to job or success
The skill areas that co-workers considered most important for the manager's job are provided in the feedback. The authors recommend that the high-ranking areas be used to help prioritize skill areas for development activity.

Other
A comparison to an "ideal job" can be accomplished by completing 2 profiles—1 on the current job and 1 on the "ideal job." This would allow for a discussion and comparison on both the qualitative and quantitative data provided in the 2 profiles.

SUPPORT AND DEVELOPMENTAL MATERIALS

Support for Participant

Development and planning guide
The *Types of Work Action Planning Workbook* contains a guide for evaluating and working with TWI results, along with development plans.

The *Types of Work Profile Handbook* is designed around answers to commonly asked questions.

Workshop
Available from Team Management Systems (TMS) certified trainers.

Summary worksheets
Worksheets are provided in the *Types of Work Action Planning Workbook*.

Support for Trainer

Trainers' guide/manual
The Types of Work Index is an administrative-support guide available to help with the facilitation and interpretation of the TWI. The 6-part guide also serves as a technical guide.

Workshop

TMS offers a certification workshop.

Supplemental norms

Comparative profiles are available for the following organizational functions: CEO, corporate planning/development, personnel/training, finance/accounting, sales/marketing, production/construction, design/R&D, consultancy, and administration. Government and educational sector norms are also available.

Certification Requirement

Certification is a requisite as a trainer to work with the TWI. Eight certification workshops are planned annually throughout North America at a registration fee of $1,395. The workshops are designed to help individuals: gain a sound understanding of the background concepts and research base of TMS; practice and demonstrate the use of TMS's language, visual models, and concepts to facilitate understanding, stimulate constructive discussion, and gain commitment to action plans; develop a high level of confidence in applying TMS's approaches to specific work contexts; and explore fundamental issues associated with organizations, their people, and their work in developing high-performing teams.

Scoring Process

The TWI is scored by TMS. Turnaround time (once all forms are received) is 72 hours.

OTHER CONSIDERATIONS

Cost

TWI costs $18 per index via bureau service and $18 per IPU (Index Processing Unit) on software. The Types of Work Report is $25 per report via the bureau.

Length of Instrument

The TWI consists of 64 questions. Respondents usually take 10 to 15 minutes to complete the TWI.

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VOICES®

Vendor: Lominger Limited, Inc.
5320 Cedar Lake Road South
Minneapolis, MN 55416-1643
(612) 542-1466

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Robert W. Eichinger, Ph.D.
Lominger Limited, Inc.

Copyright Dates: 1994, 1997

Statement of Purpose

VOICES is a multi-rater electronic instrument that provides for 15 different rater groups. Breakouts of the results include self, boss, peers/same unit, peers/other units, direct reports, and internal customers. Additional rater groups can be created by users.

Target Audience

The primary audience of VOICES is managers and executives; however, it can be used with individual contributors. The primary audience for VOICES LSA is supervisors and individual contributors.

Feedback Scales

VOICES has both standard and variable formats. The standard form contains 67 competencies and 19 career stallers/stoppers. Clients can choose from these 86 measures; they also have the capability to add their own competencies. The 67 standard competencies are grouped into 10 empirical factors:

Interpersonally/Intrapersonally Sound (19 competencies)
Sample competency: Interpersonal Savvy.

Maze Bright (5 competencies)
Sample competency: Comfort around Higher Management.

Focus on the Future (7 competencies)
Sample competency: Business Acumen.

In Close Management (10 competencies)
Sample competency: Delegation.

Flexibility (5 competencies)
Sample competency: Dealing with Ambiguity.

Making Hard Choices (5 competencies)
Sample competency: Command Skills.

Character with Customers (4 competencies)
Sample competency: Customer Focus.

Drive (6 competencies)
Sample competency: Action Orientation.

Solving Problems (5 competencies)
Sample competency: Decision Quality.

Work/Life Balance (1 competency)
Sample competency: Work/Life Balance.

The 19 career stallers/stoppers can be organized into 3 factors:

Trouble with Others (8 stallers/stoppers)
Sample staller/stopper: Insensitive to Others.

Trouble with Change (6 stallers/stoppers)
Sample staller/stopper: Unable to Adapt to Differences.

Trouble Delivering (5 stallers/stoppers)
Sample staller/stopper: Poor Administrator.

Response Scales

VOICES has 6 standard questions that raters respond to when completing feedback for the recipient (the "learner"). There are 2 required response scales on VOICES, 1 for competencies and the other for importance.

COMPETENCIES
How would you describe/rate the learner on this competency?

5 = Towering Strength (Usually no more than 5% of your ratings)
4 = Talented (Usually about 20% of your ratings)
3 = Skilled/OK (Usually about 50% of your ratings)
2 = Weakness (Usually about 20% of your ratings)
1 = An Issue (Usually about 5% of your ratings)
0 = Don't Know
0 = Can't Rate Clearly

CAREER STALLERS/STOPPERS

Does the learner have this career staller/stopper?

5 = Definitely
4 = Probably Yes
3 = Not Sure
2 = Probably Not
1 = Not a Problem
0 = Don't Know
0 = Can't Rate Clearly

INSTRUMENT DEVELOPMENT

Origin of the Competencies: Theory/Research

The authors developed VOICES by asking the question: "What skills and characteristics are known to be related to success at work?" They conducted a content analysis of the literature in this area, including sources such as a meta-analysis on what practices lead to successful change, and *The Handbook of Leadership*.

The result was not a model but rather a listing of competencies for which there was some evidence of a relationship with performance. The authors' goal was not to model any level in the organization but rather to create an umbrella list that could be used to describe any job or level.

In 1992, the authors began to test the 86 competencies/stallers in different organizations. As a result of this feedback, they modified the competency definitions and produced the first version of the instrument in 1994. By 1995, they had collected enough data to begin analysis of the instrument.

Development of Feedback Scales

The authors conducted a factor analysis using 692 raters from VOICES. Ten factors (listed previously) were found to represent the 67 competencies. All but 3 competencies loaded on the appropriate factor at .40 or above. Career stallers/stoppers grouped into the 3 factors listed previously based on a sample of 1,002 raters.

Reliability

Test-retest

Currently, no data are available.

Internal consistency

For the competency factors, alphas ranged from .69 (Character with Customers) to .92 (Interpersonally/Intrapersonally Sound). For the staller/stopper factors, the alphas ranged from .71 (Trouble with Change) to .85 (Trouble with Others).

Interrater

Currently, no data are available.

Validity

The authors conducted a validity study in which independent ratings of performance and potential were collected for 333 learners from 5 organizations. Of the 67 competencies, 51 demonstrated significant relationships with the criterion measures for 1 or more rater groups. Six competencies showed marginal relationships, and 10 competencies showed no relationship to the criteria.

A Caution Statement on Misinterpretations

The instrument vendor offers the following concerns with the use and development of VOICES:

1. Evidence of reliability and validity apply to complete data sets only—the 67 competencies and 19 stallers and stoppers.
2. Custom items added by firms require separate studies to determine their usefulness.
3. All criterion studies done in U.S. firms.

International Use

Translations

A Spanish version is available. German and French versions are under development.

CHARACTERISTICS OF FEEDBACK

Type of Feedback Display: BAR GRAPHS

Forty standard feedback report templates are included in the VOICES software. Users can access a 6-column spreadsheet program to produce custom reports. VOICES LSA has 12 standard formats. A sample report, the Group Summary on Skill Ratings, is included on the next page. This report shows the learners' skill ratings by rater group. The rating of each group is represented on a bar graph. Additionally, each group's top third and bottom third scores are indicated.

Breakout of Rater Responses

In the feedback report, self-ratings are compared to both combined ratings from all others and separately to ratings by supervisors, peers, direct reports, and customers. Ratings can be compared with any of the 15 standard groups and users can construct and label special categories of raters.

Feedback Delivery Strategies

Comparison to norms
Norms are available for the 86 measures including competence and importance norms for self, others, boss, peers, direct reports, internal customers, males and females, managers, executives, and individual executives. Optional cuts include male/female, ethnic, how long known, and how often worked with.

Highlighting largest self/rater discrepancies
Three Difference Reports are available that compare self-ratings to the combined ratings of others.

Item-level feedback
Feedback on all rated competencies is provided.

Highlighting high/low items and scales
On the Group Summary on Skill Ratings, the competencies are listed in the order of how all observers rated the learner's skills from highest to lowest.

Importance to job or success
An Importance Overview is available that ranks the competencies in order of importance to the learner's success, as judged by the rating group (all others combined); any combination of rater groups; or individual rater groups, such as direct reports.

Group Summary on Skill Ratings

Group(s): All rating groups: you, your boss, and peers, direct reports and customers (if there were 2 or more raters per group).

Question: How would you describe/rate the Learner on this competency?

Content: A summary of all skill ratings by group.

For: Sample Learner

Unit:

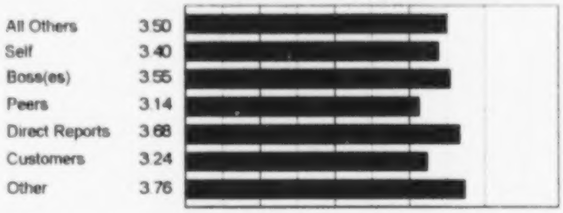
This report shows your skill ratings by groups that are large enough to report (it requires two or more raters per group other than you and your boss). The skills are listed in the order of how all raters rated your skills from the highest to the lowest. For each skill, there is a rank from 1 (first to the largest number of skills), an average score for each group (5 is high and 1 is low), and a bar representing that score. Each group's top third and bottom third scores are marked with an "H" for your 1/3 highest scores and an "L" for your 1/3 lowest scores. The H's and L's are meant to help you isolate your best relative strengths (H's) and your possible needs (L's) as seen by each group. To check for consistency across groups, look at the ranks more than the numerical averages or bars. Are your top third (H's) and bottom third (L's) the same, similar, or dissimilar across groups? Especially note those where there is an opposite opinion (one group has it as high, another as low). Your group averages are listed first and in the middle of this report. Those averages allow you to split your results into the top half and bottom half. They also show the averages of the groups compared to one another.

H = among the 1/3 highest L = among the 1/3 lowest N/D = No Data

Rating Item **Rank** **Rating** 0 1 2 3 4 5

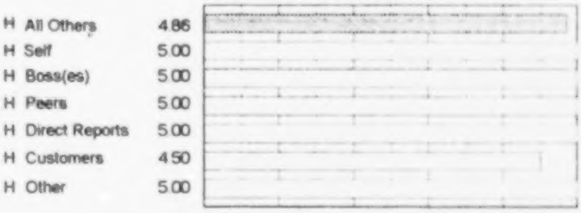
GROUP SUMMARY AVERAGES

The averages and the graph on the right represent your average ratings or scores across all of the competencies in this report by each group who rated you. The top average and bar are from all raters other than you. The second bar represents your average score. It is presented so you can easily look at competencies above and below your own personal averages. While some groups will score you higher or lower than others, which might mean something in your case, it's better to follow the "H's" (1/3 highest) and "L's" (1/3 lowest) to see if one group sees you differently than another.



Intellectual Horsepower (30) 1.0

Skilled(To): Is bright and intelligent, deals with concepts and complexity comfortably; described as intellectually sharp, capable, and agile.



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H = among the 1/3 highest L = among the 1/3 lowest N/D = No Data

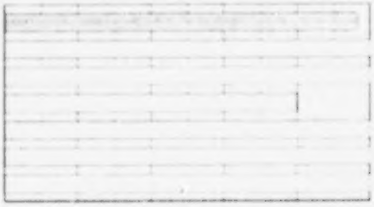
Rating Item **Rank** **Rating** **0** **1** **2** **3** **4** **5**

Innovation Management (28)

2.0

Skilled(To): Is good at bringing the creative ideas of others to market; has good judgment about which creative ideas and suggestions will work; has a sense about managing the creative process of others; can facilitate effective brainstorming; can project how potential ideas may play out in the marketplace

H	All Others	4.83
H	Self	5.00
H	Boss(es)	5.00
H	Peers	4.00
H	Direct Reports	5.00
H	Customers	5.00
H	Other	5.00

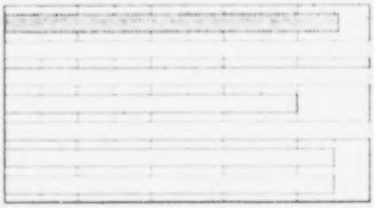


Learning on the Fly (32)

3.5

Skilled(To): Learns quickly when facing new problems; a relentless and versatile learner; open to change; analyzes both successes and failures for clues to improvement; experiments and will try anything to find solutions; enjoys the challenge of unfamiliar tasks; quickly grasps the essence and the underlying structure of anything

H	All Others	4.57
H	Self	5.00
H	Boss(es)	5.00
H	Peers	4.00
H	Direct Reports	5.00
H	Customers	4.50
H	Other	4.50

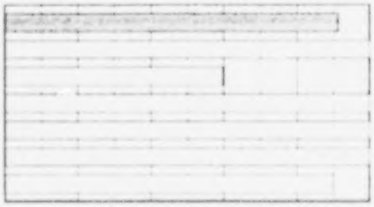


Drive for Results (53)

3.5

Skilled(To): Can be counted on to exceed goals successfully; is constantly and consistently one of the top performers; very bottom-line oriented; steadfastly pushes self and others for results

H	All Others	4.57
H	Self	5.00
L	Boss(es)	3.00
H	Peers	5.00
H	Direct Reports	5.00
H	Customers	5.00
H	Other	4.50

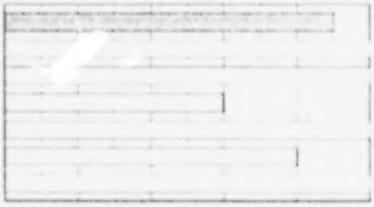


Problem Solving (51)

6.0

Skilled(To): Uses rigorous logic and methods to solve difficult problems with effective solutions; probes all fruitful sources for answers; can see hidden problems; is excellent at honest analysis; looks beyond the obvious and doesn't stop at the first answers

H	All Others	4.50
H	Self	5.00
H	Boss(es)	5.00
L	Peers	3.00
H	Direct Reports	5.00
H	Customers	4.00
H	Other	5.00



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Group Summary on Skill Ratings

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Prepared For Sample Learner

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"Do more/do less"
This information is provided through the PORTRAIT WRITER™ narrative and through the "best bet" developmental need reports.

SUPPORT AND DEVELOPMENTAL MATERIALS

Support for Participant

Development and planning guide
VOICES gives the learner (with a facilitator) the ability to create his or her own reports, which can provide data about blind spots, hidden strengths, and developmental opportunities.

Workshop
A workshop is available through associates of Lominger.

Summary worksheets
A rating overview report and "best bet" developmental need reports are available.

Support for Trainer

Trainers' guide/manual
A user's manual is available.

Workshop
A certification workshop is offered for VOICES. This program is available for human resource professionals who wish to administer and give feedback on the instrument.

Supplemental norms/group report
Norms for various industry groups are available. A group report is also available.

Supplemental materials from the vendor
In addition to VOICES, PORTRAIT WRITER™ software is also available from the vendor. This program creates narrative description of a learner's effective and ineffective behaviors based on their highest and lowest competency ratings. The CAREER ARCHITECT® Development Planner software produces development plans for each of the 86 measures.

Certification Requirement

To give feedback on VOICES, the vendor requires that the "feedback giver" attend a 1-day certification workshop. Following certification, the trainer may order VOICES from the vendor.

Additionally, certified facilitators are available to provide VOICES feedback to 1 or more employees in an organization.

Scoring Process

The administration of VOICES is by diskette. The survey is created electronically by an administrator program that analyzes the results and produces a report disk, which is read by a separate software program. The report disk allows the printing of standard and custom reports.

The vendor also offers a scoring service for organizations that do not wish to do their own processing.

VOICES is accessible through the Internet or disk for electronic processing; paper processing is available.

OTHER CONSIDERATIONS

Cost

For processing by the vendor:

Quantity	Price per Set
1-10	$250
11-50	$225
51-250	$200
251+	$175

Price includes processing of each participant's rater disks and the optional generation of 10 standard feedback reports. Additional custom-designed reports are available at $40 per report.

For in-house processing by the organization, the cost is $1,250 for software and a per usage fee thereafter. A streamlined version of VOICES is available for $500 for software and a per usage fee. For organizations providing feedback to more than 100 employees, the total cost averages from $50 to $100 per participant.

Length of Instrument

The standard form of VOICES has a total of 86 competencies and stallers/stoppers. It takes approximately 30 to 45 minutes to complete the instrument.

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ACUMEN® LEADERSHIP WORK*STYLES*™ (WORK*STYLES*)

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Copyright Dates: 1987, 1992, 1998

Statement of Purpose

Acumen Leadership Work*Styles* (WORK*STYLES*) is a multi-rater feedback instrument developed by Acumen International as a tool to measure thinking styles and attitudes that most impact leadership effectiveness. First released in 1985 as Acumen for Managers, WORK*STYLES* measures personal characteristics (traits and attitudes rather than skills and competencies) that affect a manager's performance. WORK*STYLES* feedback then addresses how these characteristics influence performance in the following areas: managing tasks, managing people, managing conflict, and leading others.

Target Audience

WORK*STYLES* is designed to be administered to a variety of executive, managerial, team, and sales positions.

Feedback Scales

WORK*STYLES* evaluates 12 thinking styles, and each style scale is measured by between 7 and 9 items. The instrument provides an indication as to how closely each thinking style describes a manager, based on co-worker responses to the associated items.

Humanistic-Helpful
Measures a manager's inclination to see the best in others, to encourage their growth and development, and to be patient and supportive. Sample item: Enjoys teaching others.

Affiliation
Measures the degree of friendliness, sociability, and outgoing tendencies a manager is likely to exhibit. Sample item: Tries to help others.

Approval
Measures a manager's need to seek others' approval and support in order to feel secure and worthwhile as a person. Sample item: Thinks in terms of what others think.

Conventional
Measures a manager's need to conform, follow the rules, and meet the expectations of those in authority. Sample item: Very respectful to others.

Dependence
Measures a manager's tendency to be compliant, passive, and dependent on others. Sample item: Obeys too willingly.

Apprehension
Measures a manager's tendency to experience anxiety and self-blame. Sample item: Easily embarrassed.

Oppositional
Measures a manager's tendency to take a critical, questioning, and somewhat cynical attitude. Sample item: Critical of others behind their backs.

Power
Measures a manager's tendency to be authoritarian and controlling. Sample item: On the offensive.

Competition
Measures a manager's need to be seen as the best and, to some extent, to maintain a self-centered attitude. Sample item: Gets upset over losing.

Perfectionism
Measures a manager's need to seek perfection and the manager's tendency to base self-worth on a self-assessment of his/her own performance. Sample item: Tries to be the best at things.

Achievement
Measures a manager's need to achieve and have a positive impact on surrounding events. Sample item: Likes tasks that require skill.

Self-actualization
Measures a manager's level of self-esteem, interest in self-development, and general drive to learn about and experience life to the fullest extent. Sample item: High personal integrity.

Response Scale

Respondents indicate how much each item characterizes the person being rated using a 5-point scale:

1 = Not at all
2
3 = Somewhat
4
5 = To a great extent

INSTRUMENT DEVELOPMENT

Origin of Items: Theory/Research

WORK*STYLES* was developed based on a series of research studies on how personal characteristics influence human behavior in general, and management effectiveness in particular. This research reviewed early personality theory through the "Big Five" personality literature, theories of motivation, and management and leadership behavior. WORK*STYLES* is based on a circumplex model of personality, as exemplified by Conte and Plutchik (1981), Wiggins (1979), and Lafferty (1973). WORK*STYLES* is most closely related to Lafferty's adaptation of personality measurement for application in business environments.

According to Warren and Gratzinger (1990), professional managers face numerous challenges, including the ability to increase both personal productivity and employee effectiveness and efficiency. The way managers confront these challenges and meet their management responsibilities is a function of their personal characteristics and management style.

Because we spend a significant percentage of our lives at work, WORK*STYLES* emphasizes the aspects of individual behavior that can change and grow within the workplace (Gratzinger, Warren, & Cooke, 1990). Some personal characteristics generate behavior that is productive in achieving organizational results. According to Gratzinger et al., there is a relationship between certain personal characteristics and success in management.

Development of Feedback Scales

The initial impetus of instrument development was to adapt the Life Styles Inventory (LSI; see pages 195-204) for computer application. The main goals were to reduce the number of items, improve the homogeneity within scales, provide for adaptive testing, restandardize with new norms, and develop a typology of thinking styles for use in reporting results.

Scales were reduced from the original 20 items per scale to between 7 and 9 items per scale by cluster- and factor-analyzing items measuring each style. In selecting items, those that contributed only marginally to the replication of the scales were excluded. Internal-consistency reliability analyses were run using a stepwise program that systematically and sequentially deleted items contributing the least to the overall reliability of the scales. Finally, correlations were computed between each item and all 12 scales to identify the items that performed most effectively from a convergent/discriminant validity perspective. This process identified the items with the most discriminating power and intensity. Item-level interrater-reliability results were used as 1 of the criteria for item selection as well, with a minimum eta-squared of .30 required for inclusion.

Three factors emerged from each of the self-assessment and co-worker feedback WORK*STYLES* scales: Task Security Orientation, Satisfaction Orientation, and Social Security Orientation. These 3 factors together explained 71% and 78% of the variance, respectively, of the self-assessment and co-worker feedback scales. These 3 factors accounted for the 12 WORK*STYLES* scales, where 4 scales load on each factor, and both the self-assessment and the co-worker feedback instruments included the same set of scales. The pattern of factor loadings provides some evidence of the circumplexual nature of the set of scales. This factor structure underlies *Level I* and *Level II Life Styles Inventory*, and the versions of WORK*STYLES* standardized on individual contributors, salespeople, and airline pilots. This factor structure also generalizes to WORK*STYLES* versions developed in French and Japanese.

Additionally, the more socially desirable scales (e.g., Humanistic-Helpful, Achievement) tend to have higher means, whereas the less socially desirable scales (e.g., Oppositional, Dependence) have lower means. The correlation among the scales reveals the pattern of the circumplex. In the circular profile—like a clock face numbered 1 through 12—scale location is proportionate to correlation between scales. Thus, the scales near each other correlate more highly than scales farther apart. For example, Conventional behavior frequently occurs in conjunction with Approval or Dependence.

Reliability

Test-retest
Currently, no data are available.

Internal consistency
From a sample of 2,500 individuals, Cronbach's alpha coefficients range from .78 (Dependence) to .87 (Affiliation) for the Self-Assessment scales; from a sample of 14,370 individuals, Cronbach's alpha coefficients range from .81 (Approval) to .92 (Affiliation) for the Co-worker Feedback scales.

Interrater

Interrater reliability was assessed using intraclass correlation coefficients. The scale-level intraclass correlation coefficients ranged from .58 to .77 (based on a mean of 5.75 raters per participant), indicating that raters have a moderately high amount of agreement among themselves.

Validity

Acumen completed numerous validity studies as part of the development of the initial version of WORK*STYLES* in 1985 (see Guest & Blucher, 1997). Over the past decade, Acumen has replicated these findings through the analyses of large data sets. Details of these studies are available from Acumen on request.

A study comparing effective and ineffective managers utilized the ratings of 556 managers and their 2,922 co-workers. At the same time that the co-workers used the Co-worker Feedback instrument to provide WORK*STYLES* ratings on the focal managers, they also provided ratings of the managers' Overall Effectiveness, Interest in Self-improvement, Ability to Deal with Negative Feedback, and Quality of Interpersonal Relations. These 4 effectiveness ratings, which used 7-point scales, were factor-analyzed to obtain a weighted-effectiveness score. The 55 managers in the top 10% of the sample on the weighted-effectiveness scales were labeled "effective"; the 54 managers in the bottom 10% were labeled "ineffective." The study then compared effective and ineffective managers on the WORK*STYLES* Self-assessment scales. Effective managers showed a predominance of styles in the satisfaction sector of Achievement, Self-actualization, Humanistic-Helpful, and Affiliation scales, which is called a top-heavy profile. The ineffective managers showed the opposite, with the lowest scores in the satisfaction sector and the highest scores on the Dependence, Apprehension, Oppositional, Power, and Competition scales. This pattern of scores is called a bottom-heavy profile. The results of independent t-tests confirmed that 7 of the 12 scales significantly differentiated effective and ineffective managers.

A second study from the financial services industry involved a sample of nearly 500 managers that included both WORK*STYLES* data and independent measures of job performance. This study examined WORK*STYLES* profile differences between the top 10% and bottom 10% subgroups (in terms of job performance ratings) and found that the most effective performers had significantly higher feedback scores on the Humanistic-Helpful, Affiliation, Perfectionism, Achievement, and Self-actualization scales. The least effective performers had significantly higher feedback scores on the Approval, Conventional, Apprehension, Oppositional, and Competition scales. This pattern confirmed earlier findings from the original validation research.

A third study examined the relationship between WORK*STYLES* and Acumen Leadership Skills (LEADERSHIP SKILLS), a multi-rater competency assessment instrument developed by Acumen. In this study, bosses and direct reports evaluated how a manager's style (as measured by WORK*STYLES*) relates to his or her success in management competencies and overall effectiveness (as measured by LEADERSHIP SKILLS). The findings of this study support earlier WORK*STYLES* validation research on effective management style. Managers who scored highest across the 16 competencies in LEADERSHIP SKILLS also had significantly higher WORK*STYLES* scores on the Achievement, Self-actualization, Humanistic-Helpful, and Affiliation scales. This same pattern emerged when the study used either boss ratings of effectiveness or direct report ratings of effectiveness as the criteria. Managers who scored lowest across the 16 LEADERSHIP SKILLS competencies had significantly higher WORK*STYLES* scores on the Apprehension, Oppositional, Power, and Competition scales. Additionally, low overall effectiveness ratings by either boss or direct reports were correlated with lower scores on Achievement, Self-actualization, Humanistic-Helpful, and Affiliation styles.

A fourth study placed 108 managers with Oppositional, Approval, and Dependence styles on teams to compete in a "survival" simulation against 102 managers with Achievement, Self-actualization, and Humanistic-Helpful styles. As predicted, the former teams were significantly less capable than the latter teams to cooperate, pool resources, and perform effectively.

Other Research

Acumen has also developed a version of WORK*STYLES* for individual contributors. This multi-rater instrument, Acumen® Team Work*Styles*™, uses the same 12-scale, circumplex-based model as the leadership version. Team Work*Styles* was normed and validated on a sample of 2,057 individual contributors who were rated by 11,324 co-workers. A similar "top-heavy" profile was associated with effective performance on the job: high scores on the Perfectionism, Achievement, Self-actualization, Humanistic-Helpful, and Affiliation scales. Individual contributors were rated on 9 different job performance measures, and the trait scales were significantly related to at least 1 of these measures of effectiveness.

A study used WORK*STYLES* self-ratings from salespeople, performance data, and sales managers' ratings of effectiveness to develop SALES ACUMEN®. SALES ACUMEN was normed and validated on a sample of 406 salespeople from 13 different companies in 9 different industries. This study found a significant relationship between style and success on the job, as measured by commission. Salespeople with a "top-heavy" profile earned on average 48.6% more in commissions than salespeople with a "bottom-heavy" profile (high scores on the Approval, Conventional, Dependence, Apprehension, Oppositional, and Power scales).

A Caution Statement on Misinterpretations

The primary purpose of WORK*STYLES* is to provide developmental feedback to participating individuals. Given that the instrument has a psychometrically sound foundation, it can also be used for other purposes such as contributing to placement, promotion, salary, or performance management decisions, with the proviso that reasonable precautions and conditions are met. WORK*STYLES* has been shown to be significantly correlated with boss ratings of performance, assessment ratings of promotability, team effectiveness, and stress-related medical symptoms. For use in contributing to placement, promotion, salary, or performance management, or other decisions affecting any terms or conditions of employment, the reasonable precautions include:

1. The WORK*STYLES* scores should be used in conjunction with other on-the-job observations and performance measures, rather than as the sole source of information for decision making. WORK*STYLES* is a useful complement—but never a replacement—for direct measures of performance.
2. Participants and co-workers should be informed clearly about the intended use of the instrument. Managers and employees should have accurate information about how the WORK*STYLES* information will be used before they participate in the process. For example, the company's consideration of WORK*STYLES* results in making decisions affecting terms and conditions of employment might be disclosed in the company handbook, memoranda relating to reviews, or other documents provided to employees. Of course, all statements in the handbook or other documentation should be consistent with the actual use of WORK*STYLES*.
3. Reasonable procedures should be adopted to ensure the selection of unbiased, knowledgeable co-workers as raters. The human resources department should be actively involved to make sure that the process of determining who will provide ratings is fair.
4. As with any measure of performance or method of review, the company should continue to consider factors (statistical or otherwise) that may indicate any disparate impact upon any protected classifications of employees, to ensure that no disparate impact occurs.

These precautions and conditions are not unique to WORK*STYLES* but apply generally to any multi-rater instrument that would be used in a similar manner.

International Use

Translations

WORK*STYLES* has been translated into French, Japanese, and Swedish.

An international language disk is available in several versions including Dutch, French, German, and Norwegian.

International norms
Norms are available for British, French, and Japanese users and can be developed for any culture on a customized basis.

Internationally tested for validity/reliability
WORK*STYLES* has been normed and validated in France and Japan.

CHARACTERISTICS OF FEEDBACK

Types of Feedback Display: CIRCUMPLEX PROFILES and NARRATIVE

WORK*STYLES* presents the overall results in a graphic profile display accompanied by detailed narrative reports. Other materials, such as workshops or individual assistance in interpreting the feedback, are not required to supplement the report. The feedback report describes the productive and counterproductive aspects found in the profile, as well as providing suggestions for development.

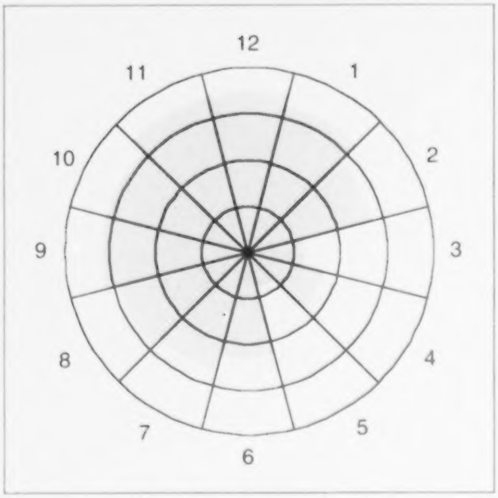
The graphic display for the self-assessment shows scores as shaded areas in a circumplex. The basic circumplex has 2 sets of features: 4 concentric circles and 12 segments. The 4 concentric circles correspond to ratings of 25, 50, 75, and 100 percentile points, where the 100th percentile is the outermost edge of the circumplex. The 12 segments correspond to the 12 WORK*STYLES* scales. An individual's score on each scale is shown by extending a shaded area out from the center of the circumplex within the appropriate segment. The longer the extension, the higher the percentile score. The main purpose of this profile display is to show which scales dominate an individual's thinking style.

The graphic display for the co-worker feedback has essentially the same format as the Self-Concept graphic, though the Co-worker Feedback graphic includes some additional features. First, the Co-worker Feedback graphic handles unusually high or low ratings among raters by weighting the rater scores before comparing them against the norms table. In addition, the Co-worker Feedback section includes a graphic that illustrates the amount of variability among raters.

Narrative Reports

While the graphic profiles provide useful information about the assessment results, the key to WORK*STYLES* feedback is the extensive use of narrative reports. The Individual Self and Feedback Reports include several detailed sections:

Summary of Self and Co-worker Perceptions: These sections summarize the manager's strengths and development needs in 4 major areas (managing tasks, managing people, managing conflict, and leadership), based on both self-perceptions and co-worker perceptions.



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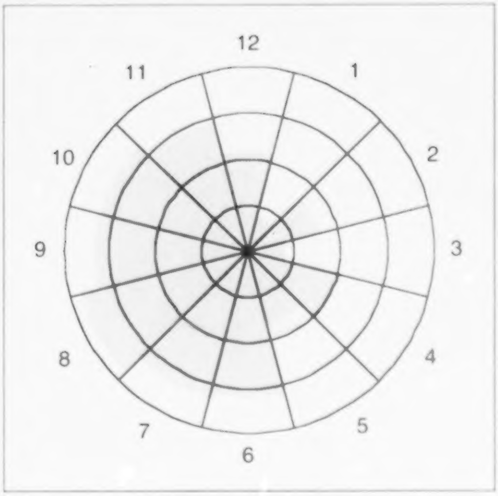

CO-WORKER FEEDBACK

One O'clock	Humanistic-Helpful *Supportive *Motivates others *Patient
Two O'clock	Affiliation *Friendly *Warm *Trusting
Three O'clock	Approval * Forgiving * Overly generous * Needs attention from others
Four O'clock	Conventional *Conforming *Reliable *Restrained
Five O'clock	Dependence *A follower *Deferential *Submissive
Six O'clock	Apprehension *Anxious *Self-doubting *Tense
Seven O'clock	Oppositional *Negative *Critical *Questioning
Eight O'clock	Power *Authoritarian *Easily angered *Controlling
Nine O'clock	Competition *Boastful *Self-centered *Needs to win
Ten O'clock	Perfectionism *Demanding *Results-oriented *Driven
Eleven O'clock	Achievement *Enjoys challenges *Strives for excellence *Decisive
Twelve O'clock	Self-actualization *Enthusiastic *Creative *Confident

Co-worker Feedback: Uses co-worker feedback to provide an overview of the manager's strengths and development needs. The section also provides interpretation and discussion of the results as they relate to leadership role and effectiveness. The section includes an outline of development needs, suggestions for improvement, and a chart outlining changes in current behaviors that can lead to more effective leadership.

Comparing Self and Co-worker Perceptions: Compares self-ratings with the feedback from co-workers. This section discusses the similarities and implications in the patterns of results. A development structure is provided to assist the manager in working through and processing the data.

Spread of Opinion: Indicates the degree to which your co-workers' feedback ratings vary. This section shows the amount of variation in their ratings on each scale.

Result on Each Scale: Describes scale-by-scale details of both self-assessment and feedback data.

Suggestions for Development: Provides a detailed menu of ideas, actions: and activities intended to stimulate a manager's thinking about ways to enhance leadership effectiveness.

Comments by Co-workers: Provides verbatim comments by co-workers in response to the opportunity to suggest development directions or suggestions.

WORK*STYLES* also provides *Group Reports*: These reports analyze self-ratings and others' ratings and provide comprehensive group feedback. The reports describe the range of compiled ratings and help the group understand and work with the compiled results.

Breakout of Rater Responses

WORK*STYLES* allows for a breakout of all raters (peers, direct reports, and bosses) or any combination of raters (e.g., peers and direct reports, bosses displayed separately, etc.).

Feedback Delivery Strategies

Comparison to norms
Percentile scores for a profile are displayed graphically on the circumplex.

Norms for WORK*STYLES* self-ratings are based on a sample of 444 managers. Each of the 444 managers had a self-assessment and feedback ratings from at least 4 co-workers. The norm data were collected between 1993 and 1996 from managers in over 70 organizations from a wide variety of industries, including banking, insurance, pharmaceuticals, public education, publishing, retail groceries, semiconductor, software, telecommunications, transportation, and utilities. The level of management ranged from supervisor to CEO, and a wide range of functional areas were represented. The vast majority of managers (about 84%) had more than 10 years of work experience, although only about 30% had been in their current job more than 5 years.

The norms for co-worker feedback are based on results of 3,046 raters. Of the raters, 10% were the manager's boss, 31% were peers, 52% were direct reports, and 7% did not indicate their relationship to the person being rated.

Highlighting largest self/rater discrepancies
The WORK*STYLES* profile displays differences between self-ratings and rater feedback, and the narrative discusses these issues in detail.

Item-level feedback
Item-level feedback is available on a custom basis for the self-ratings and others' ratings.

Highlighting high/low items and scales
WORK*STYLES* includes scale highlights in the narrative report.

Comparison to ideal
The WORK*STYLES* workshop includes an exercise in which the team members fill in a blank profile that describes the style of a manager for whom they would most want to work. The team discusses the results of the exercise and then the results are compared with data from management effectiveness studies. To facilitate these discussions, the *Leadership WorkStyles Facilitator Guide* provides graphic profiles of the most effective (Top 10%) and least effective (Bottom 10%) managers in terms of job performance ratings.

SUPPORT AND DEVELOPMENTAL MATERIALS

Support for Participant

Development and planning guide
The WORK*STYLES* feedback reports provide managers with a graphic overview of the 12 personal style characteristics, as well as a narrative discussion of the strengths, potential weaknesses, and developmental opportunities for managing tasks, people and conflict, and for promoting leadership.

The *Leadership WorkStyles Workbook* provides a formalized Action Planning Process. The *Workbook* contains a guide for evaluating and working with results and outlines a personalized development plan for change.

Workshop

A 1-day development workshop is provided by Acumen that can be modified/customized to fit specific organizational needs. The workshop is comprised of individual and team problem-solving activities and exercises, and an action planning process. Ideally, participants complete this workshop in 2 parts: the first session addresses the assessment/feedback results, while the second session focuses on action planning.

Post-assessment

WORK*STYLES* allows for unlimited reassessments by self and co-workers. The software is reusable, and managers can compare prior results to current results. In addition, the *Leadership WorkStyles Workbook* contains 5 follow-up activities that a manager completes over a 1-year time frame.

Vendor hotline

Acumen has a toll-free number for participants who need supplemental information and assistance.

Summary worksheets

The WORK*STYLES* workshop provides worksheets and the computer-generated feedback. The worksheets help managers identify strengths and development areas related to their thinking styles, and assist the manager in the creation of an action plan.

Support for Trainer

Trainers' guide/manual

The *Leadership WorkStyles Facilitator Guide* is an administrative support guide available to help trainers lead a management training course using WORK*STYLES* feedback. It serves as a technical guide, an administrative guide, and a leader guide. The leader guide is fully scripted, includes overhead masters, and offers all required instructional material for leading a workshop.

Workshop

Acumen International offers Trainer Certification Workshops and on-site consulting to customize workshops to fit specific customer needs. If desired, Acumen can also deliver workshops to participants (e.g., Executive Team Building).

Supplemental norms

Clients can compile and print group reports on-site if they purchase a report processor, or can purchase this processing service directly from Acumen.

Video

WORK*STYLES* has an accompanying video that explains each scale and the overall structure of the instrument. The video examines the issues associated with managerial behaviors. The workshop uses the video to teach participants about the instrument, and participants use this information to predict their assessment results.

Supplemental materials from the vendor
Acumen can provide complete workshop materials, including how to administer WORK*STYLES*, and numerous research papers on WORK*STYLES* validity and reliability.

Certification Requirement

Acumen provides quarterly open Trainer Certification Workshops to train and certify qualified professionals to deliver WORK*STYLES* workshops. Acumen can also deliver Trainer Certification Workshops with up to 15 participants to a specific organization.

Scoring Process

WORK*STYLES* uses Web-based, LAN-based, and PC disk instruments and/or paper-and-pencil forms to collect and analyze information from managers and co-workers in an organization. Each WORK*STYLES* assessment instrument contains all the programming needed for participants to collect self and co-worker assessment information using a personal computer.

An "expert system" report generator, which also runs on a personal computer, produces the feedback reports. Clients can purchase the report generator software for on-site report processing, or managers can send their assessment results to Acumen for scoring and feedback report production.

OTHER CONSIDERATIONS

Cost

WORK*STYLES* costs $175 per manager. Acumen will perform the report processing for an additional fee, or clients can purchase the scoring/report generator software. In addition, Acumen offers a variety of pricing options, from packaged pricing to site licenses, to accommodate the needs of each customer.

Length of Instrument

The WORK*STYLES* instrument includes 12 demographic questions and 96 items. Participants can complete an assessment in approximately 15 minutes.

WORK*STYLES*' open architecture allows clients to customize items, demographics, score areas, graphics layout, and report narratives, and allows the client to include company-specific (local) norms.

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Feedback to Managers

A REVIEW AND COMPARISON OF MULTI-RATER INSTRUMENTS FOR MANAGEMENT DEVELOPMENT

THIRD EDITION

An increasingly popular means for managers to get information on their performance is the multiple-perspective, or "360-degree," feedback instrument. Used independently or as part of a management-development program, 360-degree feedback can enhance self-awareness by highlighting what bosses, peers, subordinates, and customers see as an individual's strengths and development needs. Selecting the right instrument from among the dozens that are available today can be difficult, however. This new edition of *Feedback to Managers*, which updates and expands the popular 1991 edition, aims to facilitate selection by providing an in-depth analysis of twenty-four of today's most frequently used and representative instruments.

Each instrument is described in detail, providing the following types of information:

Descriptive: author, copyright date, statement of purpose, target audience, cost, scoring process, certification process, instrument length, item-response format, and type of raters.

Research: item origins, feedback scales, scale definitions and sample items, and a bibliography of written reports or papers from studies of the instrument's reliability and validity.

Training: a sample feedback report and descriptions of support materials provided for trainers or participants.

This volume is a companion to *Choosing 360: A Guide to Evaluating Multi-rater Feedback Instruments for Management Development* (CCL, 1997).

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